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WOMAN'S ARCHIVES

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FOOD

Fuel For the Human Engine

WHAT TO BUY
HOW TO COOK IT
HOW TO EAT IT

By

EUGENE LYMAN FISK, M.D.

Medical Director, Life Extension Institute

The simple story of feeding the family, based on the Diet Squad Experiment in cooperation with the New York City Police Department and the Department of Nutrition, Teachers College, Columbia University



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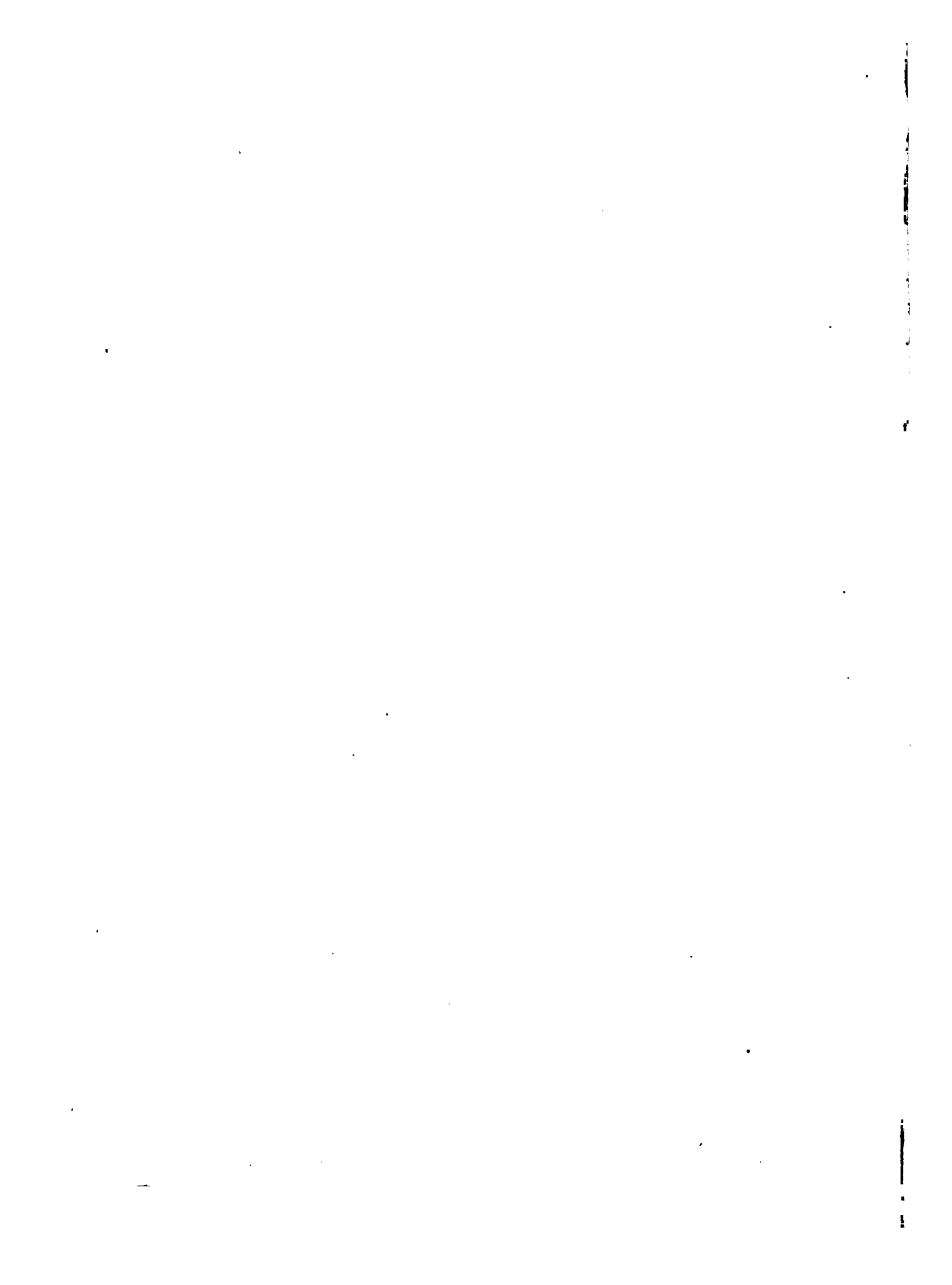
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I

FOOD

Section I—Kinds of Food

The body needs fuel, just as an engine needs fuel.

An engine must have the right kind and the right amount of fuel, or it can not work well. And the human body also must have the right kind and amount of food or it can not work well.

The human body is doing some work all the time, even in sleep, in sickness, and when resting. Heart, muscles and lungs are always "on the job."

An engine has to be built and repaired, to be stoked, to be oiled and regulated. It is the same with the human body: We need

- A. FUEL FOOD
- B. BUILDING or REPAIR FOOD
- C. REGULATING FOOD

A. FUEL FOODS

A worker at a desk or at a machine where he does no hard labor requires only about half the fuel that is necessary for a very hard-working man, a woodsawyer for example. A farmer needs about one-third more fuel than the average desk-worker. The average woman taking little exercise needs about one-third less fuel than the average man who has more muscular tissue and is

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more active. Children need a lot of fuel as they burn it quickly. A girl fourteen to seventeen years of age will need as much or more than a full-grown woman, and a boy of the same age more than a full-grown business man. So people vary in their fuel needs just as different types of automobiles vary in the amount of gasoline they need.

The following list shows the main fuel foods. These are the great foundation foods of the diet, the foods that supply energy for muscular work. Mental work requires so little extra fuel that it is not necessary to consider it specially.

There are three groups of fuel foods.

Here they are in order of cost per calory, *i.e.*, those giving most energy for the money heading the list.

1. Starchy Foods	2. Sugars	3. Fats
Cornmeal	Sugar	Drippings
Hominy	Corn syrup	Lard
Broken rice	Dates	Salt pork
Oatmeal	Candy	Oleomargarine
Flour	Molasses	Nutmargarine
Rice	Most fruits	Peanut butter
Macaroni		Milk
Spaghetti		Bacon
Cornstarch		Butter
Dried lima beans		Cream
Split peas, yellow		
Dried navy beans		
Bread		
Potatoes		
Bananas		

About 85 per cent. of the fuel (calories, see Section 2) should come from this group, using starchy foods in largest amounts, fats next and sugars least.

Fats, starchy foods and sugars are almost pure fuel, like coal, while cereal foods also contain some building and regulating material.

B. BUILDING AND REPAIR FOODS

The body is continually rebuilding worn parts, and needs several kinds of food for this purpose. In general, building foods fall into two classes, called "Proteins" and "Mineral Salts."

1. **Protein Food or "Body Bricks."** Proteins may be compared to building bricks and are represented in the diet by lean meat of all sorts (including fish, shell food and fowl), milk, cheese, eggs, dried peas and beans, lentils and nuts.

There is also a fair amount of protein in cereals and bread (about 10 per cent.), which are both building and fuel foods. Eggs and flesh foods need to be limited in quantity because too much of them may make trouble for the human machine, leaving in the body, when burned (digested), wastes that may be likened to "clinkers" in the furnace.

Most foods contain some protein, but those here mentioned are richest in protein, and hence are termed building or repair foods.

Protein foods for building and repair in order of their cost, those giving most building and repair value for the money heading the list.

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Beans (dried white)	Peanuts
Dried Peas	Macaroni
Oatmeal	Mutton, Leg
Cornmeal	Beef, Lean rump
Beans, dried lima	Milk (9c. a quart)
Bread	Beef, Lean round
Bread, whole wheat	Lamb, Leg
Bread, Graham	Eggs (24c. a dozen)
Salt cod	Halibut
Milk, skimmed (6c. a quart)	Porterhouse steak
Cheese (American)	Eggs (36c. a dozen)
	Almonds, shelled

The very high protein or repair foods (meat, fish, eggs, and fowl) should be eaten once a day. The rest of the repair material needed will be found in sufficient quantity in the balance of the diet. Muscular labor, which increases the need for fuel (calories) does not materially increase the need for bricks or proteins. It is a mistake to think that eating meat gives special strength for work. Starchy foods, fat and sugar, are the great sources of working force. To burn meat for fuel is like burning mahogany or rosewood for kindling wood, or burning wood that is full of bolts and nails, or covered with mortar.

2. **Mineral salts.** The second kind of building material includes a variety of minerals which help to make bones, blood and other body parts. They are found chiefly in milk, cereal foods (when made from whole grains), fruits and vegetables. Of these minerals, lime, iron and phosphorus are especially needed to keep the

body in healthy condition. In a diet that daily includes milk, green vegetables, fruit, and cereals made from whole grains (oatmeal, flaked wheat, wheatena, etc.) there is little danger of mineral starvation. Where the diet is very limited, with white flour, fats and sugar forming the chief foods, there is such danger. A pint of milk a day is the best insurance against lime and phosphorus lack. Cereals, fruits and green vegetables will furnish iron, and may be supplemented by eggs (especially yolks) and meat for this purpose.

REGULATING FOODS

1. **Mineral salts.** These serve two purposes in the body. They are building foods, as stated above, and also help to keep the body machinery running properly.

2. **Water.** Water is one of the most important of regulating foods. Most people drink too little. A glass in the morning on arising, one before each meal, and another on going to bed, or, a glass at each meal, and one between meals, are good rules. Water at meals is beneficial except for persons who are too fat. They should avoid much water at meals and drink some between meals.

3. **Ballast or bulk.** A diet which contains no vegetable fiber is insufficient except for babies. This fiber is found in graham or whole wheat bread, leaves and skins of plants and skins of fruit. Examples are: Vegetables—Lettuce, parsnips, carrots, turnips, celery, oyster plant, cabbage, Brussels sprouts, tomatoes, salsify, Spanish

onions, spinach. Fruit—apples (baked or raw), pears, currants, raspberries, cranberries, prunes, dates, figs. This ballast or bulk counteracts constipation and gives adequate work to teeth, jaws, stomach and bowels. These organs will degenerate if allowed to “loaf.”

4. Hard foods. The bulky foods just mentioned assist in inducing proper chewing of foods, but proper chewing and vigorous use of the teeth and jaws is further secured by including in the diet hard foods such as crusts, hard crackers, toast, zweiback, fibrous vegetables and fruits, like celery and nuts. Chewing hard foods means more health and less dentist's bills.

5. Accessories or Vitamins. There are minute substances (vatamins and lipoids) present in very small quantities in a number of foods and apparently absolutely necessary to health, but not found in all kinds of food material. This is one more reason for variety in the diet. Milk, eggs, whole wheat, corn, oatmeal, potatoes and oranges are some of the foods known to contain them. The skins or hulls of cereals are also good for this reason, and fresh meat, fresh peas and beans. Cooking reduces the amount of vitamins in most foods. Hence, as a matter of safety, orange juice should be given to children when pasteurized milk is the chief food. Adults would do well to eat some raw food and fresh fruit daily. It seems necessary to include the leaves of plants (green vegetables) when the seeds of plants (cereal, grains, flour) are used as food if the diet is to be complete and well balanced.

Section II—Feeding the Human Furnace

Suppose we have all these kinds of food in the pantry and the coal to cook them. Are we safe?

By no means.

We may not serve these foods in the right proportion; for example: Too much or too little fuel food, too little regulating food, or too much building or repair food. Perhaps the food may be eaten in the wrong way or under unfavorable conditions.

Let us suppose that we have the right kind of food, properly cooked. How are we to get it into the human furnace so that we shall secure the full value of it without clinkers or without undue waste or injury to the engine and the machinery?

You may say "Just swallow it." Many do this and suffer injury. They put food into the stomach as you would pack a trunk, or fill a pail. Many foods (bread cereals, cake, potatoes, and the like) are partly digested in the mouth, and all foods are prepared in the mouth for reception into the stomach. Many foods (meat, fish, eggs, chicken, parts of cereals, bread and other foods) are partly digested in the stomach and prepared for further digestion in the bowels. From the bowels the various classes of foods are conveyed where they are needed for work (fuel), for building or repair, and for regulating the blood and organs. Mouth, stomach and bowels must do team work if your body is to be properly nourished.

THEREFORE: You must chew your food thoroughly until it naturally slides down the gullet. Don't

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count your chews or think of your chews, but "TASTE" your food thoroughly. You will be surprised at the extra flavor and enjoyment and you will not eat so much. Eating keeps you alive. It is worth doing well.

Be cheerful. Do not worry about your food, or anything else. Bring no grouch to the dinner table. Eat regularly, even though not hungry. If not hungry, eat little. As the hour for meals approaches, the thought of food makes the juice in the mouth flow. Your mouth waters. As you chew your food, and taste it thoroughly, the juice of the stomach flows and good digestion is assured. Your stomach stops working when you are angry, worried or unduly excited. A little rest before and after meals is good.

Let mealtime be a time of good cheer. It is no time to discuss troubles.

Don't unload all the worries of the day at the dinner table. Talk them over when the body and mind are rested and digestion has well started, and you will find your way out of trouble much more easily.

The story of diet and good feeding is very simple. Approach it as you would any other simple story. Do not think that because it concerns the body it is necessarily mysterious, a complex scientific matter that only experts can understand. Read the story of the diet squad and feed the family in an understanding way instead of by a hit-or-miss method that a farmer would scorn to use in feeding hogs or horses.

SUMMARY

Is it necessary to know how many calories you are getting each day, or how many ounces of protein? By no means.

The following rules will make it possible for you to feed yourself and your family without weighing your food or counting your calories.

Weigh yourself twice a month. If you are above the average weight you need less fuel. If you are very light in weight and losing weight, you need more fuel.

Try to have some bulky food, some raw food, some whole cereal, some fruit and some milk in your diet each day.

Eat high protein foods (meat, fish, fowl, eggs only once a day in moderate amount. Have one or two meatless days a week.

Section III—Advice for Special Types of People

You who are overweight remember that you are carrying a burden that may break down your health. You should eat less of fats, starchy foods, and sugars, and you should avoid alcoholic drinks. Eat more fruit and vegetables, especially cabbage, lettuce, celery, spinach, string beans, cucumbers, carrots, tomatoes, turnips and sea kale. Exercise daily.

You who are pale and thin, and losing weight, eat freely of all the foods in the menus and watch your weight and your color. Do deep breathing and setting-up exercises. Try to get more fresh fruit, vegetables and egg yolks if possible.

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You who are constipated—Eat freely of whole cereals, bran-bread, bran-biscuits, lemon juice, and orange juice, cabbage, and other bulky vegetables. Strictly avoid mineral water, pills, laxatives. Use mineral oil if necessary, one or two ounces at night. Exercise, use water between meals freely, and have regular times for bowel movement. If such natural methods are not sufficient consult a doctor.

You who work at desks—Eat lightly of the starches, fats and sugars, and try to get plenty of fruit, green vegetables and milk.

You who are doing heavy work—Eat freely. Watch your weight. Eat enough to keep your weight at the average for age thirty. Do not put on great layers of flesh. Fat is not good for a prizefighter; it is not good for you. All men should be "in training" all the time; always "fit"; good muscles; no pads of useless, burdensome fat. Cut down on the bread and butter, sugar, puddings, and cereals if you find yourself climbing up the scale. Potatoes do not matter. They are 75 per cent. water but valuable food, and you are not likely to eat enough of them to count heavily.

You who are moderately active, not at hard labor but still moving about and not at a desk or machine all the time, eat moderately and include some fresh fruit and green vegetables in your diet.

You who think this is all nonsense—go to the census records, and you will find that one-half of the people died before sixty years of age, many of them because they did not know how to feed their bodies.

WEIGHT AND HEALTH**Table of Heights and Weights at Age 30 *****Men:**

5 ft.	5 ft.	5 ft.	5 ft.	5 ft.	5 ft.	5 ft.	5 ft.	5 ft.
0 in.	1 in.	2 in.	3 in.	4 in.	5 in.	6 in.	7 in.	8 in.
126	128	130	133	136	140	144	148	152

5 ft.	5 ft.	5 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.
9 in.	10 in.	11 in.	0 in.	1 in.	2 in.	3 in.	4 in.	5 in.
156	161	166	172	178	184	190	196	201

Women:

4 ft.	4 ft.	4 ft.	4 ft.	5 ft.	5 ft.	5 ft.	5 ft.	5 ft.
8 in.	9 in.	10 in.	11 in.	0 in.	1 in.	2 in.	3 in.	4 in.
112	114	116	118	120	122	124	127	131

5 ft.	5 ft.	5 ft.	5 ft.	5 ft.	5 ft.	5 ft.	6 ft.
5 in.	6 in.	7 in.	8 in.	9 in.	10 in.	11 in.	0 in.
134	138	142	146	150	154	157	161

Lightweight is not a disadvantage if one is otherwise in good health, especially after age 30.

Overweight is always a disadvantage and should be avoided, especially by those approaching middle life. Keep your weight about the average figure for age 30, and do not let it creep up as you become older.

The death-rate among those 50 to 80 lbs. overweight at middle life, is nearly double that of those slightly underweight at that age. Some allowance must be made for type, a heavy-framed individual carrying naturally more weight than one slender and light-framed.

* Height and weight taken with coat and vest or waist removed, shoes on.

OVERWEIGHT AND THE DEATH-RATE

The fact that the man of average weight is, after age forty, actually overweight and that the average individual at that age is above the best weight is shown by life insurance experience. For example, a man of five feet seven inches to five feet ten inches in height, age forty-five to forty-nine, ten pounds underweight, would have a 4 per cent. lower mortality than the man of exactly average weight for that age and height.

Overweights at that age and height show the following extra mortality as compared to those ten pounds under the average weight:

POUNDS OVERWEIGHT		PER CENT. HIGHER DEATH-RATE	POUNDS OVERWEIGHT		PER CENT. HIGHER DEATH-RATE
5.....		08	50.....		60
10.....		12	55.....		65
15.....		18	60.....		71
20.....		22	65.....		78
25.....		26	70.....		85
30.....		32	75.....		92
35.....		40	80.....		100
40.....		49	85.....		110
45.....		55	90.....		120

This shows that the burden of extra mortality borne by the heavy-weight regularly increases with gain in weight. At the same age and height fifty pounds underweight shows a death-rate equal to the actual death-rate among insured lives generally and only 6 per cent. in excess of the death-rate among those of average weight. Thirty-five pounds under-

weight at that age shows a lower mortality than among those of average weight.

TABLE SHOWING INFLUENCE OF UNDERWEIGHT

Ages: 45 to 49.

Height: 5 ft., 7 in. to 5 ft., 10 in.

(Height and weight taken with coat and vest off, and in shoes.)

UNDER THE AVERAGE WEIGHT

5 lbs.....	3% lower death-rate than average weight
10 "	4% " " " " " "
15 "	5% " " " " " "
20 "	5% " " " " " "
25 "	4% " " " " " "
30 "	3% " " " " " "
35 "	2% " " " " " "
40 "	0 mortality of average weight
45 "	3% higher death-rate than average weight
50 "	6% " " " " " "

It must be remembered that these figures are taken from life insurance sources where the individuals have been subjected to careful medical examination. This shows that no matter how careful the medical examination, it has been impossible to select a favorable class of mature overweights while it has been possible to select a relatively favorable class of mature underweights. It should also be remembered that these figures relate to underweight and overweight entirely apart from other adverse factors. That is, these groups presented no other departure from the normal than their variation in weight.

The following is a simple dietary for an overweight who has no serious organic disease:

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Breakfast: Apple, small orange, or $\frac{1}{2}$ grapefruit; one or two eggs; thin toast, dry or very lightly buttered, coffee, with hot milk instead of cream; not more than one lump sugar.

Luncheon: Vegetable soup (no cream soups); rye bread, bran bread or bran biscuit, or Graham rolls—thinly buttered (one small pat only); lettuce and cheese salad, or lettuce and tomato, or fruit salad; French dressing.

Dinner: Moderate helping of any roast of lean meat or non-fat poultry or fish; baked or boiled potato; any bulky vegetable (as lettuce, Swiss chard, parsnips, carrots, turnips, celery, oyster plant, cabbage, Brussels sprouts, tomatoes, salsify, Spanish onions, spinach); coffee; fruit dessert—grapefruit cocktail, oranges, or stewed fruits.

Beware of alcohol, especially beer; also candy between meals, and pastry. Pie, French pastry and sweet desserts often furnish as many calories as the balance of the meal (pie, 300 to 400).

A cup of bouillon and a cracker may be taken at 11 a.m.; tea, with lemon and a little sugar at 5 p.m., and a glass of skimmed milk on retiring, if the need of food is felt.

The more rapid digestion and absorption of such a dietary, owing to the small amount of fat, may account for the feeling of "goneness" that some people complain of when following it; hence, the value of forenoon and afternoon "snacks."

Such a diet can be held down to 15,000 calories or less and thus force the average individual to contribute 1,000

calories daily from his own fat. A fairly liberal indulgence in such a diet will keep the calories below 1,800 and with even a moderate amount of exercise some weight will gradually be lost each day.

Avoid starvation diet and fasting, except for diseased conditions, such as diabetes, when such measures should be taken under medical supervision. A starvation diet robs the tissues of building and repair material. It is not such material that should be reduced, but the fatty tissues.

Section IV—Feeding the Children

It is especially important at the present time to guard our children against insufficient nourishment. The trend toward simple diet and household economies must not go to the extreme of restricting the diet of growing boys and girls. The tissues of the child are undergoing rapid changes and there is a high expenditure of energy, hence the fuel requirement of the child is greater in proportion to weight than that of the adult.

The average adult beyond thirty or thirty-five requires food restriction and will benefit by it, but the growing child should be allowed to eat pretty freely, simply guiding the consumption of food along proper lines.

The following table prepared from various sources by the New York Association for Improving the Condition of the Poor shows the food requirement of children:

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FOOD ALLOWANCES FOR CHILDREN

AGE, YEARS	CALORIES PER DAY	
	BOYS	GIRLS
Under 2.....	900-1,200	900-1,200
From 2 to 3.....	1,000-1,300	980-1,280
From 3 to 4.....	1,100-1,400	1,060-1,360
From 4 to 5.....	1,200-1,500	1,140-1,440
From 5 to 6.....	1,300-1,600	1,220-1,520
From 6 to 7.....	1,400-1,700	1,300-1,600
From 7 to 8.....	1,500-1,800	1,380-1,680
From 8 to 9.....	1,600-1,900	1,460-1,760
From 9 to 10.....	1,700-2,000	1,550-1,850
From 10 to 11.....	1,900-2,200	1,650-1,950
From 11 to 12.....	2,100-2,400	1,750-2,050
From 12 to 13.....	2,300-2,700	1,850-2,150
From 13 to 14.....	2,500-2,900	1,950-2,250
From 14 to 15.....	2,600-3,100	2,050-2,350
From 15 to 16.....	2,700-3,300	2,150-2,450
From 16 to 17.....	2,700-3,400	2,250-2,550

Note that the food requirement of a boy of sixteen may exceed by one-third that of an ordinary sedentary business man, which is about 2,500 calories. Children need plenty of fuel food, cereals, bread and butter, milk, cheese, eggs in moderation, but not a large amount of meat, certainly not more than once daily. The type of child must be considered, but on the whole the child's demands should be met as regards quantity and care taken that the diet does not become "finicky" or too narrow.

Fruit and green vegetables and a quart of milk daily should be insisted upon, and it is seldom that any undue gain in weight will be noticed. Such tendencies do not usually need watching until after thirty.

Average Physical Measurements and Weights of Male and Female Children from Six to Forty-eight Months Old

Total Number of Males Measured, 5,602

Total Number of Females Measured, 4,821

MALE				FEMALE			
Age Months	No.	Weight, Pounds	Height, Inches	Age Months	No.	Weight, Pounds	Height, Inches
6	259	18	26½	6	176	16¾	25¾
7	256	19½	27¼	7	188	17¾	26½
8	232	19¾	27¾	8	186	18¼	27
9	211	20¾	28½	9	183	19¾	27¾
10	209	20¾	28½	10	175	19¾	27¾
11	193	21¾	29	11	165	20¼	28¼
12	284	21¾	29¾	12	228	20¾	28¾
13	264	22¾	29¾	13	208	21	29¼
14	212	23	30¼	14	208	21¾	29½
15	215	23¾	30¾	15	197	21¾	30¼
16	186	24¾	31¼	16	176	22¾	30½
17	159	24¾	31¾	17	143	22¾	30¾
18	181	24¾	31¾	18	178	23¾	31¼
19	156	25½	32¼	19	132	23¾	31½
20	170	25¾	32¾	20	131	24¼	32
21	159	25¾	32¾	21	142	24¾	32¼
22	160	26¾	33¼	22	125	25¼	32¾
23	184	27	33¾	23	134	25¾	32¾
24	201	27¾	33¾	24	160	26¾	33¾
25	150	27¾	34	25	126	26¾	33¾
26	147	28¾	34¾	26	131	27¼	33¾
27	126	29	34¾	27	136	27¾	33¾
28	121	29¾	35¼	28	95	27¾	34¾
29	94	29¾	35¾	29	95	27¾	34¾
30	153	29¾	35¾	30	132	28¾	34¾
31	113	30¾	35¾	31	109	28¾	35¾
32	110	30¾	36	32	116	29	35¾
33	102	30¾	36¾	33	97	29¾	35¾
34	113	31¾	36¾	34	91	30¼	36¼
35	116	31¾	36¾	35	84	30¾	36½
36	76	32¼	37¼	36	90	30¾	36¾
37	25	32¼	37¾	37	28	30¾	36¾
38	37	32¾	37¾	38	31	31	37
39	36	33¼	37¾	39	37	31¾	37¼
40	24	33¾	38¼	40	26	32	37¼
41	21	33¾	38¾	41	16	32¼	37¾
42	27	33¾	38¾	42	42	32¾	38
43	17	33¾	38¾	43	12	32¾	38¼
44	19	34¼	38¾	44	22	33	38½
45	27	34¾	39	45	18	33¾	38½
46	17	34¾	39	46	9	33¾	38¾
47	21	35¾	39¾	47	12	33¾	38¾
48	19	35¾	39¾	48	31	33¾	39

Compiled for the American Medical Association by Frederick S. Crum, Assistant Statistician, the Prudential Insurance Company of America, Newark, N. J.

II

THE "ROOKIE" DIET SQUAD

Section I—How and Why the "Rookies" Were Fed

These twelve young men were volunteers from the Training School of the New York City Police Department who pledged themselves to eat nothing during the three-weeks' period of the test except the food served in the temporary diet kitchen established by the Life Extension Institute in one of the City Buildings at 49 Lafayette Street.

AGE	WEIGHT AT START	WEIGHT AT CLOSE
29	165½	169
24	172	176½
27	161	164
24	179	179½
25	167	167¾
31	150	155½
25	169	170¾
25	200	202
27	156	159½
29	155	157¾
25	195	195
25	161	161
<hr/> 316 (Aggregate)	<hr/> 2,030 (Aggregate)	<hr/> 2,059 (Aggregate)
<hr/> 26 (Average)	<hr/> 169 (Average)	<hr/> 172 (Average)

The average blood pressure at the start was 129; at the close, 124, which is exactly normal for the age. The average height was 5' 9".

They were, therefore, about 15 lbs. above the average weight of 154 lbs., the standard usually adopted in dietetic studies as the weight of the average man, and their food requirement was accordingly proportionately greater, and was estimated as 3,500* calories per man per day. This, of course, is an average, as the requirements were between 3,000 and 3,800 calories according to the weight and physique.

At the close of the experiment the group had gained 29 lbs. in weight. Altho moderate gains in weight are not uncommon when the diet is changed, unless it is markedly insufficient, the gain of 29 lbs. in these young men may be taken as good evidence that they maintained their physical condition on the food eaten, while still continuing their gymnasium work, which occupied about two and one-half hours daily, the rest of the day being passed chiefly in the class-room. In fact, their strenuous exercise—Boxing, wrestling jiu-

* The calory is a unit of heat or energy measurement, just as an inch is a unit of length measurement, or a pound a unit of weight, and represents the amount of heat required to raise one pound of water 4 degrees Fahrenheit.

During rest there is required about $\frac{1}{4}$ to $\frac{3}{4}$ of a calory per hour per pound of body weight (assuming that a person is well proportioned and not fat). During exercise the requirement varies from 1 to 3 calories per hour per pound of body weight, according to the activity. The heavier the work the larger the number of calories required until the amount needed per day per man reaches 5,000 to 6,000 in those working all day at very hard muscular labor. This has been determined by actual experiment with people engaged at their work in a respiration calorimeter or specially devised room in which their heat consumption can be measured.

jitsu, etc.—was increased during the last week of the test.

At the close of the experiment the men were completely re-examined and their condition was found to be improved, and there was no evidence of any ill effects from the change in their diet.

In spite of the cheapness of the diet, which was kept within the limit of 25 cents for the estimated food requirement (3,500 calories), the men were benefited by the change from the more irregular and less well-balanced diet that most of them had been following, in which meat and eggs figured very largely.

It is true that in spite of certain precautions some of the men, although already somewhat overweight, exceeded the food requirement and gained weight, but that does not alter the fact that the maintenance diet was kept within the cost of 25 cents per man a day.

A working man of average weight (154 lbs.) and a fuel requirement of 3,000 calories could live on this diet at a cost of about 21 cents per day.

Only one meat meal a day was served in the diet kitchen and on several days no meat was served. The men entered seriously into the spirit of the experiment and showed intelligent cooperation. They express themselves as desirous of continuing the general dietetic habits formed.

As Commissioner Woods has so clearly stated, the test was not undertaken with a view to prove that 25 cents a day is the proper amount to spend, but in order to show that it is possible for a man to be healthy and active on a small sum if wisely spent.

It was also desired to ascertain the actual relationship of present market prices to foods absolutely required to nourish the average person. The result of the experiment is a clear demonstration of the fact that one must have some knowledge of food value, far more knowledge than the average housewife possesses, in order to secure the necessary foods in the right combination to nourish an average man.

Millions of people have no more than that to spend for food and it is of extreme importance that the simple knowledge necessary to guide them safely should be carried to them. Others who are spending far more than that are not living well, and may be actually under-nourished, while others are over-nourished. To convey clear knowledge and instruction on these matters vital to the health and progress of the nation was the central purpose of the experiment.

REQUIREMENTS OF THE DIET SQUAD

The fuel requirements of these men ranged from 3,000 to 3,800 calories per day, some of them being considerably over average weight, and all doing active muscular work. Over-eating was prevented as far as possible by serving half portions at the beginning of the meal, and the rest in a second serving which was usually requested. The meals were well-balanced and contained an adequate amount of protein (about 10 per cent. of the calories) and sufficient mineral salts and food accessories.

With more money to spend the diet could have been brought closer to the ideal by using more fresh fruit

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and green vegetables, such as Brussels sprouts, cabbage, spinach and lettuce, to give variety, attractiveness, and flavor to the meals, as well as insure an abundance of the accessory food elements and of ballast or fibrous matter to prevent constipation and maintain intestinal activity. As a matter of fact, the menus probably contained more ballast than the men had been accustomed to in view of the whole cereals used so freely (oatmeal and graham bread), and the peas, beans, carrots, turnips, and stewed dried fruits. The men had been in the habit of eating freely of meat, which has no ballast. Some of them were relieved of constipation by the diet. Others showed improved blood pressure, probably due to reduction of meat. Remember, that with more money to spend, milk, vegetables, fruit and eggs should be bought and not meat or sweets.

Lightweight people would benefit by the general character of the diet, adding milk, if possible, eggs and plenty of butter or butter substitutes. Those overweight would benefit by eating less of the starchy and sugary foods, cutting down cereals, bread and butter; omitting sugar, and using more fruit and coarse fibered vegetables; omitting puddings and substituting fruit desserts for them; cutting down on butter.

The diet could also be lowered in cost by eliminating tea and coffee, which are not necessary, and may be questioned from the standpoint of health and hygiene. They were admitted to the dietary in order not to make too radical a change in the men's habits and impair the practical value of the experiment. Any money

so saved should be spent for milk, fruit or vegetables. These dietaries are not appropriate, as already stated, for young children, who should have a large amount of milk, at least one quart daily, and more eggs, fruit and green vegetables, if possible, although not more meat.

THE SCIENTIFIC CONTROL OF THE TEST

The thanks of the public and of the Institute are due to Police Commissioner Arthur Woods, for his public-spirited interest and cooperation in making the test a success; to Prof. Mary Swartz Rose, of Teachers College, Columbia University, and her able assistants, Miss Mary G. McCormick and Miss Marian F. Walker, who admirably covered the technical work involved in the test, and in the preparation of this booklet. The test was under the general supervision of the Medical Director of the Institute, Dr. Fisk, in consultation with Prof. Irving Fisher, and other members of the Hygiene Reference Board.

A technical paper will be issued later giving the complete scientific data for use of students and teachers.

Section II—Menus Served to the "Rookie" Diet Squad

HOW TO USE THE MENUS

The menus herein given are not suitable, as they stand, for all classes of people.

They form a wholesome diet, however, for the average active individual. For sedentary people they should be

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modified and taken in small quantities. This can be done either by spending less or decreasing the amount of fuel food used and including more fruit and green vegetables.

More eggs and milk are needed for children, and if possible, more fruit and green vegetables, but for them the fuel food must be kept high. The special menus for children are given for one week, as an example.

Tea and coffee were included as concessions to former habits of those who volunteered to take the diet experiment, but are not advised as regular indulgences.

TUESDAY, Jan. 9

Breakfast—Oatmeal with milk, toast and nut margarine, coffee.

Luncheon—Baked macaroni and cheese, corn bread, nut margarine, tea.

Dinner—Meat loaf with French fried potatoes, graham bread, nut margarine, date pudding with sauce, tea.

WEDNESDAY, Jan. 10

Breakfast—Hominy, bananas, milk, rolls, nut margarine and coffee.

Luncheon—Baked beans, salt pork, brown bread, nut margarine and tea.

Dinner—Goulash, steamed rice, hot biscuit, nut margarine, apple pie and tea.

THURSDAY, Jan. 11

Breakfast—Oatmeal and milk, toast with nut margarine, coffee, milk.

Luncheon—Split pea soup with croutons, raisin bread with nut margarine, tea.

Dinner—Roast beef heart stuffed with carrots and onions, whole wheat bread, nut margarine, corn-starch pudding and milk, tea.

FRIDAY, Jan. 12

Breakfast—Fried mush, syrup, rolls, nut margarine, coffee, milk.

Luncheon—Savory rice, currant rolls, nut margarine, tea, milk.

Dinner—Baked haddock, stuffed, scalloped potatoes, graham bread, nut margarine, fruit pudding with clear sauce, tea.

SATURDAY, Jan. 13

Breakfast—Hominy, milk, toast and nut margarine, coffee.

Luncheon—Baked bean soup, French toast, nut margarine and tea.

Dinner—Kidney stew, baked potatoes, whole wheat bread, nut margarine, stewed prunes, molasses cookies, tea.

SUNDAY, JAN. 14

Breakfast—Oatmeal and milk, pancakes, nut margarine and syrup, coffee.

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Dinner—Roast pork with apple sauce, samp, wheat bread and nut margarine, apricot-tapioca pudding, tea.

Supper—Corn chowder, graham bread with nut margarine, tea.

MONDAY, Jan. 15

Breakfast—Oatmeal and milk, rolls and nut margarine, coffee.

Luncheon—Meat soup with barley, currant bread and nut margarine, tea.

Dinner—Beef stew with dumplings, mashed turnips, rye bread and nut margarine, baked rice pudding with raisins, tea.

TUESDAY, Jan. 16

Breakfast—Hominy and milk, graham toast and nut margarine, coffee.

Luncheon—Scalloped onions and peanuts, hot buns and nut margarine, oatmeal cookies, tea.

Dinner—Mock chicken with tomato sauce, carrots, whole wheat bread and nut margarine, chocolate blanc mange, tea.

WEDNESDAY, Jan. 17

Breakfast—Oatmeal with milk, graham muffins and nut margarine, coffee.

Luncheon—Stewed lima beans, oat bread with nut margarine, tea.

Dinner—Creamed codfish, baked potato, whole wheat bread with nut margarine, Norwegian prune pudding, tea.

THURSDAY, Jan. 18

Breakfast—Fried hominy and syrup, rolls and nut margarine, coffee.

Luncheon—Spaghetti and cheese, pickled beets, cinnamon rolls with nut margarine, tea.

Dinner—Corned beef and cabbage, carrots, graham bread and nut margarine, mock cherry pie, tea.

FRIDAY, Jan. 19

Breakfast—Oatmeal with milk, toast with nut margarine, coffee.

Luncheon—Salmon croquettes with peas, date bread and nut margarine, tea.

Dinner—Baked split peas, stuffed green peppers, whole wheat bread and nut margarine, sliced oranges and bananas, tea.

SATURDAY, Jan. 20

Breakfast—Hominy and milk, toast with nut margarine, coffee.

Luncheon—Welsh rarebit on toast, scalloped tomatoes, hot biscuit, nut margarine, tea.

Dinner—Corned beef hash with vegetables, graham bread, nut margarine, brown betty with hard sauce, tea.

SUNDAY, Jan. 21

Breakfast—Oatmeal and milk, corn griddle cakes, syrup and nut margarine, coffee.

Dinner—Rolled steak, graham bread and nut margarine, mashed sweet potatoes, chocolate ice cream, tea.

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Supper—Creamed oysters on toast, Parker House rolls, nut margarine, stewed peaches and raisins, tea.

MONDAY, Jan. 22

Breakfast—Hominy and milk, graham toast and nut margarine, coffee.

Luncheon—Scalloped rice and tomatoes, corn muffins and nut margarine, apple dumplings and hard sauce, tea.

Dinner—Hamburger steak, Lyonnaise potatoes, whole wheat bread and nut margarine, cottage pudding with clear sauce, tea.

TUESDAY, Jan. 23

Breakfast—Oatmeal and milk, crullers, rolls and nut margarine, coffee.

Luncheon—Potato soup with carrots, rye bread and nut margarine, stewed prunes, ginger snaps, tea.

Dinner—Parsnips, baked with sausage, samp, whole wheat bread with nut margarine, fruit sauce, tea.

WEDNESDAY, Jan. 24

Breakfast—Hominy with milk, toast with nut margarine, coffee.

Luncheon—Baked lima beans, Boston brown bread and nut margarine, sliced oranges and bananas with shredded cocoanut, tea.

Dinner—Liver and bacon, creamed potatoes, whole wheat bread and nut margarine, coffee jelly, tea.

THURSDAY, Jan. 25

Breakfast—Oatmeal and milk, toast and nut margarine, coffee.

Luncheon—Macaroni croquettes with tomato sauce, graham bread and nut margarine, cornstarch pudding with raisin sauce, tea.

Dinner—Beef pot roast, carrots and onions, whole wheat bread and nut margarine, caramel tapioca, tea.

FRIDAY, Jan. 26

Breakfast—Hominy and milk, toast with nut margarine, coffee.

Luncheon—Baked rice and cheese, raisin bread and nut margarine, apple sauce, tea.

Dinner—Scalloped salmon, German fried potatoes, graham bread and nut margarine, prune pie, tea.

SATURDAY, Jan. 27

Breakfast—Oatmeal and milk, rolls and nut margarine, coffee.

Luncheon—Fried mush and syrup, white bread and nut margarine, stewed apricots, tea.

Dinner—Baked beans with salt pork, whole wheat bread and nut margarine, molasses cake, tea.

SUNDAY, Jan. 28

Breakfast—Oatmeal and milk, griddle cakes with nut margarine and syrup, coffee.

Dinner—Veal loaf and baked barley, graham bread and nut margarine, pickled beets, lemon milk sherbet and vanilla wafers, tea.

Supper—Kidney bean stew, whole wheat bread and nut margarine, apple sauce, cake, tea.

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MONDAY, Jan. 29

Breakfast—Hominy and milk, toast and nut margarine, coffee.

Luncheon—Split pea soup, toasted crackers, whole wheat bread and nut margarine, baked bananas, salted peanuts, tea.

Dinner—Codfish cakes with tomato sauce, graham bread and nut margarine, fruit shortcake, tea.

MODIFICATION OF DIET SQUAD MENUS FOR A FAMILY INCLUDING YOUNG CHILDREN

TUESDAY, Jan. 9

Breakfast—Oatmeal with milk, buttered toast, milk for children to drink, coffee for adults only, prune juice for children under 2.

Luncheon—Baked macaroni and cheese (chopped fine for children under 3 and preferably without cheese), corn bread baked in a thin sheet (stale whole wheat bread for children under 5), milk or cocoa (made with milk) for children to drink, tea for adults only.

Dinner—Meat loaf (not for children under 7), French fried potatoes only for adults, baked potatoes for children (better to bake potatoes for all), cereal with milk for children under 7, whole wheat bread, date pudding (not for children under 10), bread pudding with raisins for children (may be served to all instead of date pudding), milk for children to drink, stewed prunes for children (the 2-year olds should be in bed before the family dinner).

WEDNESDAY, Jan. 10

Breakfast—Hominy with milk, very ripe bananas (mashed for children under 5), twice-baked rolls (toast for children under 5), prune juice for children under 2, milk for children to drink, coffee for adults only.

Luncheon—Baked beans, salt pork, brown bread, for adults and older children, bean soup and whole wheat bread for those under 7, milk or cocoa (made with milk) for children, tea for adults only.

Dinner—Goulash (only a little of the gravy for children under 7), vegetables (served liberally to children), steamed rice for all, hot biscuit only for adults, whole wheat bread for children, apple pie for adults, brown betty for children (may be served to all instead of pie), milk for children to use on rice and brown betty. Tea for adults only.

THURSDAY, Jan. 11

Breakfast—Oatmeal and milk, toast with butter, prune juice for children under 2, milk for children to drink, coffee for adults only.

Luncheon—Split pea soup with croutons, raisin bread with butter (plain whole wheat bread for children under 5), milk or cocoa made with milk for children to drink, tea for adults only.

Dinner—Roast beef heart stuffed with carrots and onions (not for children under 7, except the vegetables, which should be served the children liberally, being put through a sieve for those under 3), whole wheat bread, butter, boiled rice with milk

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for children under 7, stewed dried apples for children (2-year-olds being in bed), cornstarch pudding for all, tea for adults only.

FRIDAY, Jan. 12

Breakfast—Fried mush with syrup for adults and children over 10, plain hot mush with milk for younger children, twice-baked rolls (toast for children under 5), butter, orange juice for children under 2, milk for children to drink, coffee for adults only.

Luncheon—Savory rice, currant rolls (toasted rolls from breakfast for children under 7), butter, cocoa for children (made with milk), stewed raisins for children under 7, tea for adults only.

Dinner—Baked haddock (not for children under 3), scalloped potatoes, whole wheat bread, fruit pudding with clear sauce (for adults and children over 10), baked cornmeal pudding with raisins for younger children, milk for children to drink with bread and pudding, tea for adults only.

SATURDAY, Jan. 13

Breakfast—Hominy with milk, toast and butter, prune or orange juice for children under 2, milk for children to drink, coffee for adults only.

Luncheon—Baked bean soup, for all, French toast for adults and children over 7, plain toast for younger children, butter, apple sauce for children, cocoa for children to drink (made with milk), tea for adults only.

THE "ROOKIE" DIET SQUAD

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Dinner—Kidney stew (not for children under 7), baked potatoes for all, vegetables (carrots, turnips) cooked with kidney for children, whole wheat bread, butter, stewed prunes, molasses cookies, milk for children to drink, tea for adults only.

RAW MATERIALS IN ORDER OF COST PER LB.

Vanilla	2.4000	Salmon, canned.....	.2200
Gelatine	1.9200	Bacon, average.....	.2130
Nutmeg	1.6000	Coffee .....	.2000
Sage	1.0400	Pork, salt.....	.2000
Mustard .....	.6800	Pork, fresh, average.....	.1948
Ginger .....	.5333	Lamb .....	.1875
Pepper .....	.5200	Dates .....	.1860
Cloves .....	.4800	Codfish, fresh.....	.1800
Baking powder.....	.4200	Cream, 18.5%.....	.1700
Cinnamon .....	.4000	Apricots, dried.....	1.700
Soda bicarbonate.....	.4000	Peanuts .....	.1600
Chocolate .....	.3800	Veal .....	.1600
Tea .....	.3500	Beef, average.....	.1526
Eggs (9 per lb.).....	.3370	Raisins .....	.1516
Yeast .....	.3200	Apples, dried.....	.1500
Cocoonut (shredded)....	.3000	Kidney beans.....	.1400
Cheese, American, pale..	.2800	Beef, corned.....	.1400
Nut Margarine (Nucoa)	.2700	Peas, split.....	.1400
Currants, dried.....	.2500	White beans, dried.....	.1300
Oysters2400	Macaroni, average.....	.1300
Codfish, salt.....	.2200	Prunes1300

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Lima beans, dried.....	.1233	Rolls, white.....	.0640
Tomatoes, canned.....	.1220	Barley0600
Haddock1200	Beets0600
Beef, liver.....	.1200	Graham flour.....	.0600
Beef, heart.....	.1200	Rice, broken.....	.0600
Peaches, dried.....	.1200	Boston brown bread....	.0500
Pork sausage.....	.1200	Carrots .....	.0500
Crackers, soda.....	.1100	White flour.....	.0500
Cabbage .....	.1050	Hominy .....	.0500
Peas, canned.....	.1010	Pork, larding.....	.0500
Rye bread.....	.1000	Rolled oats.....	.0500
Cranberries .....	.1000	Potatoes, white.....	.0500
Spaghetti .....	.1000	Samp .....	.0500
Pork, kidney.....	.1000	Cornmeal .....	.0400
Suet .....	.1000	Milk .....	.0400
Corn, canned.....	.0960	Vinegar .....	.0400
White bread.....	.0900	Oranges .....	.0320
Cornstarch .....	.0900	Bananas .....	.0320
Tapioca .....	.0900	Potatoes, sweet.....	.0300
Graham bread.....	.0800	Turnips .....	.0311
Brown sugar, average...	.0760	Salt .....	.0200
Granulated sugar, average	.0750	Rock salt.....	.0170
Molasses0715	Lemons, 12c. doz.	
Onions0700	Gr. peppers, 12 for 15c.	
Parsnips0643		

THE "ROOKIE" DIET SQUAD

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CLASSIFICATION ACCORDING TO COST PER 100 CALORIES

COOKED RECIPE	COST	COOKED RECIPE	COST
Cabbage .....	.0710	Chocolate ice cream.....	.0111
Boiled onions.....	.0402	Potato soup with carrots	.0109
Carrots and onions.....	.0330	Raisin' sauce.....	.0107
Carrots .....	.0295	Liver and bacon.....	.0106
Baked stuffed haddock...	.0261	Scalloped salmon.....	.0105
Beef pot roast.....	.0228	Corn chowder.....	.0105
Stuffed green peppers...	.0212	Corned beef hash.....	.0101
Turnips and potatoes (mashed) .....	.0211	Codfish balls.....	.0100
Cr. oysters.....	.0180	Cr. codfish.....	.0099
Beets, pickled.....	.0179	Chocolate blanc mange..	.0096
Kidney stew.....	.0168	Scalloped onions and pea- nuts .....	.0094
Hamburg steak.....	.0158	Stewed peaches.....	.0092
White sauce (for salmon croq.) .....	.0153	Kidney bean stew.....	.0091
Veal loaf.....	.0150	Scalloped potatoes.....	.0089
Rolled steak with dress- ing .....	.0150	Apple sauce.....	.0088
Baked potatoes.....	.0148	Stewed apricots.....	.0087
Beef stew with dumplings	.0147	Bread pudding.....	.0087
Stuffed beef heart.....	.0142	Clear sauce (for cottage pudding) .....	.0084
Sliced oranges and ba- nanas, with cocoanut..	.0135	Spaghetti and cheese....	.0084
Roast pork.....	.0127	Welsh rarebit and toast..	.0082
Creamed potatoes.....	.0119	Scalloped tomatoes.....	.0080
Sliced orange and banana	.0117	Stewed lima beans.....	.0077
Lyonnaise potatoes.....	.0115	Lemon milk sherbet.....	.0076
Parsnips (baked with sausage) .....	.0113	Split pea soup.....	.0076
Apples (dried) for sauce	.0112	Sauce (for short cake)..	.0075
Prunes, stewed.....	.0111	Baked beans with salt pork .....	.0074
Coffee jelly.....	.0111	Mock chicken.....	.0069
		Cornstarch pudding.....	.0069
		Cottage pudding.....	.0068

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COOKED RECIPE	COST	COOKED RECIPE	COST
Rice pudding with raisins	.0068	Syrup for cornmush....	.0044
Apricot tapioca .....	.0067	Scalloped rice and toma-	
Baked split peas.....	.0067	toes .....	.0044
Graham muffins.....	.0064	Crullers .....	.0041
Cinnamon rolls (yeast)..	.0064	Oat bread.....	.0040
Cornstarch pudding.....	.0063	Macaroni croquettes....	.0039
Brown betty.....	.0062	Raisin bread.....	.0039
Baked lima beans.....	.0061	Baked barley.....	.0037
Baked rice and cheese...	.0059	Meat soup with barley...	.0037
Oatmeal cookies.....	.0058	Pancakes .....	.0037
Molasses cake.....	.0057	Baking powder short cake	.0036
Apple sauce cake.....	.0056	Corn cakes.....	.0035
German fried potatoes...	.0056	Corn griddle cakes.....	.0034
Fruit pudding.....	.0055	Parker House rolls.....	.0034
Clear sauce (for fruit		Corn muffins.....	.0032
pudding) .....	.0054	Molasses cookies.....	.0032
Prune pie.....	.0054	Samp .....	.0031
Apple dumpling.....	.0054	French toast.....	.0029
Tapioca .....	.0053	Hominy (fried).....	.0028
Hard sauce.....	.0052	Ginger snaps.....	.0026
Salmon croquettes.....	.0051	Fried cornmeal mush....	.0024
Savory rice.....	.0051		
Vanilla wafers.....	.0049		
Currant bread.....	.0049		
Currant rolls.....	.0046		
Date bread.....	.0046		
Yellow split pea soup....	.0045		
Mock cherry pie.....	.0045		
Baking powder biscuits..	.0045		

Note that the most expensive food served, that is, least energy for the money, was cabbage, 7c. per 100 calories. The cheapest, cornmeal mush, $\frac{1}{4}$ c. per 100 calories.

Section III—Recipes for Menus Served to Diet Squad

(Unless otherwise indicated, recipes are for five people)

Apple Dumplings

1 cup flour	$\frac{3}{8}$ to $\frac{1}{2}$ cup water
2 teaspoons baking powder	4 tablespoons fat
$\frac{1}{2}$ teaspoon salt	5 apples

Sift the baking powder, salt and flour, work in fat and make a soft dough with water. Roll and cut into five good-sized biscuits. In each fold an apple, cored and pared, and sprinkled with sugar. Bake for about forty-five minutes, or until the apples are soft. Serve with hard sauce.

Apple Sauce Cake

1 cup sugar	1 teaspoon soda
2 tablespoons butter	$\frac{1}{2}$ teaspoon cinnamon
1 cup apple sauce	$\frac{1}{2}$ teaspoon cloves
2 cups flour	$\frac{1}{4}$ teaspoon salt
$\frac{3}{4}$ cup raisins	$\frac{1}{4}$ teaspoon nutmeg

Sift together the soda, spices, salt and flour. Cream the butter, add sugar, apple sauce, dry ingredients and seeded raisins. Bake in a moderate oven.

Apricot Tapioca Pudding

6 apricots	1 cup pearl tapioca
$\frac{1}{2}$ cup sugar	$\frac{1}{2}$ teaspoon salt
3 cups boiling water	

Cover the tapioca with cold water and soak for one hour. Drain off the cold water, add the boiling water and salt, and cook over water (in a double boiler if you have one) until the tapioca is transparent, and no hard center portion remains. This will require about 30 minutes. Place the apricots in a buttered baking dish. Add sugar to the tapioca, pour this over the apricots, add apricot juice, and bake in a moderate oven for about twenty minutes. Cool and serve. If dried apricots are to be used, they should be soaked over night, or several hours in cold water sufficient to cover them. Cook in the water in which they have soaked until they are tender.

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Baked Bananas

5 bananas 2 tablespoons sugar
1¼ tablespoon lemon juice

Remove bananas from skins, sprinkle with lemon juice and sugar and bake in moderate oven about twenty minutes, until bananas are golden brown.

Baked Barley

½ cup barley ½ teaspoon salt
3 cups boiling water ¾ cup left over gravy

Soak barley over night. Drain. Cook in boiling salted water until tender. Drain. Add left over gravy and bake for twenty minutes in a moderate oven. If one has a meat bone, or left over bits of meat, these may be boiled with the barley to give it flavor.

Baked Bean Soup

2 cups cold baked beans 2 slices onion
4 cups water ¼ sliced carrot
Salt and pepper 2 tablespoons fat
2 tablespoons flour

Put beans, onion and carrot in sauce pan with four cups water and allow to simmer for a half hour. Rub through a colander, or coarse sieve. Add salt and pepper and bind with flour and fat, which have been cooked together.

Baked Beans with Salt Pork

1½ cups beans (dry) ½ lb. salt pork
2½ tablespoons molasses

Parboil beans, drain and place in bean pot, filling the pot about two-thirds full. Put in salt pork, the rind of which has been scored.

Pour molasses over pork. Add cold water, using sufficient to almost cover the beans. Bake in a slow oven for ten hours. Do not try to keep the bean pot filled with water, but allow water to cook down so that fat can brown.

Baked Lima Beans

Lima beans may be used instead of the navy beans, and baked in just the same way.

Baked Haddock, Stuffed

1¾ pounds haddock	1 tablespoon grated onion
1 tablespoon fat	½ teaspoon salt
2 cups bread crumbs	½ teaspoon pepper
½ cup hot water	

Clean the haddock, and sprinkle with salt and pepper. Make a stuffing of the bread crumbs, salt, pepper, onion and hot water. Stuff the fish, brush over with melted fat, sprinkle with flour, and put on rack in baking pan, in the bottom of which is about a half cup of hot water. Bake in a hot oven for about forty-five minutes. Baste the fish occasionally to keep it from becoming dry.

Baked Rice with Cheese

¾ cup rice	1½ teaspoons salt
5 cups boiling water	½ pound cheese
4 tablespoons fat	

Wash rice. Stir gradually into boiling salted water and cook until the rice is tender—about twenty-five or thirty minutes. Into a greased baking dish put alternate layers of rice and grated cheese, dotting cheese over with bits of fat. Put into hot oven for about ten minutes, allowing rice to brown over the top.

Baked Split Peas

1½ cups split peas	2 quarts boiling water
1 quart cold water	½ pound bacon

Look over peas, and soak in cold water over night. Drain and cook in boiling water until tender. Drain. Put into pan, sprinkle with salt, pepper and flour and lay thin slices of bacon across the top. Bake for about forty minutes.

Baking Powder Biscuits

2 cups flour	1 teaspoon salt
4 teaspoons baking powder	¾ tablespoons fat
¾ cup water	

Sift together the flour, baking powder and salt. Work in fat with a fork or the fingers; add water gradually, making a soft dough. Turn dough on floured board, roll out to one-half inch thickness, cut into biscuits, and bake in a hot oven for twelve to fifteen minutes.

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Beef Pot Roast (12 servings)

2½ pounds chuck

Heat frying pan until very hot. Sear meat well on all sides, browning it. Remove from frying pan and put into iron kettle. Rinse out frying pan with two cups of water, which is poured over the meat. Let meat simmer for three hours, or longer if necessary to make it tender. Keep a small amount of water in the kettle—not enough to cover the meat, and turn the meat from time to time. Add salt and pepper the last hour of cooking.

Beef Stew with Dumplings

Beef—chuck—¾ lb.	(for dumplings)
2 cups boiling water	1 cup flour
1½ tablespoons flour	2 teaspoons baking powder
	½ teaspoon salt
	1 teaspoon fat
	½ cup water

Cut meat into 1½ inch cubes. Brown these in a frying pan with drippings or bits of fat meat. Put meat into kettle, rinse out frying pan with the hot water, and pour this over meat. Let meat simmer for about three hours, or until tender. Thicken the stew with 1½ tablespoons flour. Season with salt and pepper. Make dumplings by sifting together the flour, baking powder and salt. Rub in fat with fingers or a fork. Add water. Drop dough by spoonfuls into stew and cook.

Bread Pudding

2½ cups bread crumbs	¾ teaspoon vanilla
1 cup milk	½ teaspoon salt
1 cup water	⅛ teaspoon nutmeg
4 tablespoons sugar	⅛ teaspoon cinnamon

Scald milk and pour over bread crumbs. Add sugar, water and salt, vanilla and spices. Mix well together, and bake for about one hour in a moderate oven. Serve with fruit sauce. Fruit sauce is made by adding to a clear sauce some left over raisins, peaches and orange peel. Any left over bits of fruit can be utilized in this way.

Brown Betty with Hard Sauce

3 cups graham bread crumbs	1 teaspoon grated nutmeg 1 teaspoon cinnamon (ground)
1 cup dried apples	
$\frac{3}{4}$ cup brown sugar	$\frac{1}{2}$ cup water
$\frac{1}{4}$ cup melted butterine (or other fat)	

FOR HARD SAUCE THE FOLLOWING:

$\frac{1}{4}$ cup butter	$\frac{1}{8}$ teaspoon vanilla
$\frac{1}{2}$ cup brown sugar	2 tablespoons milk

Wash dried apples, soak over night with enough water to cover, and stew in the same water in which they were soaked until they are tender. Melt fat and mix with crumbs. Put into a baking dish alternating layers of crumbs and apples, sprinkling each layer of apples with sugar, nutmeg, cinnamon and water. Have the last layer of crumbs. Bake for about thirty minutes. For hard sauce, cream the butter thoroughly; add the sugar very gradually, and milk drop by drop until the mixture is well blended. Add vanilla.

Caramel Tapioca

$\frac{1}{2}$ cup tapioca	$\frac{1}{2}$ teaspoon salt
$1\frac{1}{4}$ cups brown sugar	$\frac{1}{2}$ teaspoon vanilla
3 cups water	$\frac{1}{2}$ cup cold water

Wash tapioca well and soak over night in the water. Leaving tapioca in water in which it was soaked, add the brown sugar and salt, mix thoroughly and put into greased baking dish. Bake for an hour in a slow oven. Remove from oven, add one-half cup water, and the vanilla. Cool before serving.

Carrots

3 medium sized carrots	2 tablespoons flour
$\frac{1}{8}$ teaspoon nutmeg	

Wash carrots, scrape and cut into cubes. Cook in boiling water for about forty minutes, or until tender. The time for cooking will vary with the age of the carrot. When tender add salt to taste, nutmeg, and thicken with flour.

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Chocolate Blanc Mange

3 tablespoons cornstarch	$\frac{3}{4}$ square chocolate
1 cup milk	$\frac{1}{4}$ teaspoon vanilla
$\frac{1}{4}$ cup sugar	$\frac{1}{4}$ teaspoon salt
$\frac{1}{2}$ cup water	

Mix together the cornstarch, salt and sugar. Add cold water, gradually, making a thick paste. Melt chocolate, scald milk, and add milk to chocolate, rinsing out dish in which chocolate was melted. Add this to the cornstarch paste, gradually. Cook over hot water for about twenty-five minutes, stirring constantly. Serve cold.

Chocolate Ice Cream

$1\frac{1}{2}$ cups milk	$\frac{1}{2}$ teaspoon salt
5 tablespoons sugar	$\frac{1}{2}$ teaspoon vanilla
$2\frac{1}{2}$ tablespoons flour	$\frac{1}{2}$ square chocolate
$\frac{1}{2}$ cup thin cream	

Mix sugar, salt and flour, and slowly add $\frac{1}{2}$ cup cold milk, stirring constantly so that there are no lumps. Add remainder of milk, scalded, and cook this mixture over hot water for about fifteen minutes, until it thickens. Melt chocolate over hot water and add to thickened milk. Cool. Add vanilla and thin cream. Freeze, using three measures of ice to one of salt.

Cinnamon Rolls

About 6 cups flour	1 tablespoon sugar
1 pint lukewarm water	1 cup currants
1 teaspoon salt	$\frac{1}{2}$ teaspoon cinnamon
4 tablespoons fat	1 yeast cake

Dissolve the yeast cake in $\frac{1}{4}$ cup of the warm water. Add the remainder of the water to the fat, sugar and salt. Add yeast cake and flour. Stir in currants, knead, and let rise. Turn out on floured board, roll out to one-third inch thickness. Shape into rolls, cover and let rise. Before baking brush over with melted fat, and sprinkle with sugar and cinnamon.

Clear Sauce for Fruit Pudding

$\frac{1}{2}$ cup sugar	$\frac{3}{4}$ tablespoon cornstarch
$\frac{2}{3}$ cup boiling water	$\frac{1}{2}$ teaspoon vanilla

Mix sugar and cornstarch. Add the boiling water gradually, stirring constantly. Boil for five minutes. Remove from fire and add vanilla.

Codfish Balls (11 balls)

$\frac{1}{2}$ cup cod fish	$1\frac{1}{2}$ tablespoons fat
$1\frac{1}{4}$ cups potatoes	Flour
Fat for frying	

Wash fish and cut into small pieces. Wash potatoes, pare and cut into slices. Cook fish and potatoes together in boiling water until the potatoes are soft. Drain, and mash thoroughly. Add fat and season, if salt is needed. Shape into balls, roll these in flour and fry in deep fat. Have the fat so hot that it is beginning to smoke. Drain cooked fish balls on unglazed paper.

Coffee Jeliy

2 tablespoons gelatine	$\frac{1}{2}$ cup boiling water
$\frac{1}{2}$ cup cold water	$\frac{1}{4}$ cup sugar
$1\frac{1}{4}$ cups boiled coffee	

Soak the gelatine in cold water for fifteen minutes. Add boiling water and hot coffee and stir until the gelatine is completely dissolved. Add sugar. Set in a cold place to become firm.

Corn Bread

2 cups meal	3 teaspoons baking powder
1 cup flour	4 teaspoons sugar
1 teaspoon salt	1 pint sweet milk
1 cup warm water	$\frac{3}{4}$ cup fat (lard)

Mix the dry ingredients, add the melted lard, milk and water, and bake in a thin sheet.

Corn Chowder

$\frac{1}{4}$ can corn	$1\frac{1}{2}$ cups boiling water
$1\frac{1}{2}$ inch cube of salt pork	2 tablespoons butter
1 medium sized potato cut in slices	$\frac{1}{8}$ sliced onion
2 cups milk	$\frac{1}{4}$ teaspoon sugar
	Salt and pepper

Cut the pork into small pieces and try it out. Add the onion and cook for about five minutes. Strain the fat into a stew pan. Cook the potatoes for about five minutes in boiling salted water. Drain, and add the potatoes to the fat. Add the boiling water and cook until the potatoes are soft. Then add corn and milk and heat to the boiling point. Add the salt, pepper, sugar and butter. Serve immediately after adding butter.

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Corn Muffins

1¼ cups cornmeal	5 teaspoons baking powder
1 cup flour	1 teaspoon salt
1½ tablespoons sugar	1 cup water
3 tablespoons melted fat	

Sift together the flour, cornmeal, baking powder, sugar and salt. Add water and melted fat. Bake in moderate oven for about twenty-five minutes.

Corned Beef Hash with Vegetables

1½ cups corned beef (cold, left over)	1 cup turnips (cooked)
	1 small onion, chopped fine
2¼ cups diced potatoes (cooked)	½ cup cooked carrots
	¾ cup water
3 tablespoons fat	

Cut the meat into small pieces. Add cooked vegetables, cut into small cubes, onion and water. Put into hot frying pan, add hash and cook for about twenty minutes, allowing the hash to brown. Other left over meat may be added to corned beef, or used instead of corned beef.

Cornstarch Pudding with Raisin Sauce

6 tablespoons cornstarch	2 cups water
¾ cup sugar	¾ teaspoon vanilla
½ cup milk	½ teaspoon salt

Mix the cornstarch and sugar. Add ¼ cup of water, stirring until free from lumps. Add salt, and the milk and remainder of the water, which have been warmed together. Cook over hot water until thickened, and free from raw taste. Remove from fire, add vanilla and cool. This may be molded in cups. Serve cold.

Raisin Sauce

½ cup raisins	1 teaspoon cornstarch
1 tablespoon sugar	¼ teaspoon vanilla
¾ cup water (boiling)	

Mix the cornstarch and sugar, add water gradually, stirring constantly. Add raisins which have been seeded and cleaned. Cook until the raisins are tender. Add vanilla.

Cottage Pudding with Clear Sauce (10 servings)

$\frac{1}{4}$ cup butter	1 cup milk
$\frac{2}{3}$ cup sugar	$2\frac{1}{4}$ cups flour
1 egg	4 teaspoons baking powder
	$\frac{1}{2}$ teaspoon salt

Sift together the flour, baking powder and salt. Cream the butter, add sugar gradually and well beaten egg. Add alternately the milk and the sifted dry ingredients. Mix well. Turn into buttered cake pan and bake in a moderate oven for thirty-five minutes.

Clear Sauce for Cottage Pudding

$\frac{1}{4}$ cup sugar	$1\frac{1}{2}$ teaspoons cornstarch
1 tablespoon butter	$\frac{1}{2}$ cup boiling water
	$\frac{1}{2}$ teaspoon vanilla

Mix the sugar and cornstarch, and add water gradually, stirring. Boil for five minutes, remove from fire, add butter, cool and add vanilla.

Creamed Codfish

$\frac{1}{2}$ pound salt cod	4 tablespoons flour
4 tablespoons fat	2 cups milk

Pick codfish in pieces, cover with warm water and allow to soak for about three hours, or until soft. Melt the fat, add the flour and cook together for about three minutes. Add milk and cook until it thickens. Drain codfish, and add to white sauce. Heat, serve.

Creamed Oysters

$\frac{1}{2}$ pint oysters (1 cup)	4 tablespoons fat
1 pint milk	$\frac{1}{2}$ teaspoon salt
4 tablespoons flour	Pepper

Melt fat, add flour and cook together for three minutes. Add milk and stir constantly until thickened. Add seasoning and oysters, and keep white sauce just below boiling point, allowing the oysters to cook slowly, until the edges curl. Serve on toast.

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Creamed Potatoes

5 medium-sized potatoes	4 tablespoons flour
$\frac{1}{2}$ cup milk	4 tablespoons fat
$1\frac{1}{2}$ cups water	$\frac{1}{2}$ teaspoon salt

Pepper

Cut boiled potatoes in dice. Melt fat in sauce pan, add flour and cook together for three minutes. Add milk and water, and stir until thickened. Season, add potatoes, and cook until potatoes are warmed through.

Crullers (36 crullers)

$\frac{1}{4}$ cup butter	4 cups flour
1 cup sugar	$3\frac{1}{2}$ teaspoons baking powder
2 eggs (whites and yolks separated)	1 cup milk
	Fat for frying

Cream the butter, add sugar gradually, yolks of eggs beaten and whites of eggs beaten until stiff. Sift together the flour and baking powder, add to first mixture alternately with milk. Turn out on floured board, roll thin and cut into strips about three inches long and two inches wide. In each strip make four crosswise gashes. Heat kettle of fat for frying until it begins to smoke. Drop crullers into hot fat, allow them to rise to top of fat and turn. Turn at intervals, allowing crullers to become brown on both sides. Drain on unglazed paper. Into a bag (paper) put 5 teaspoons sugar and $3\frac{1}{2}$ cinnamon. Shake the crullers in the bag with the sugar and cinnamon.

Currant Rolls

2 cups flour	3 tablespoons currants
$2\frac{1}{2}$ tablespoons fat	4 teaspoons baking powder
$2\frac{1}{2}$ tablespoons sugar	$\frac{1}{2}$ cup milk
	$\frac{1}{4}$ teaspoon cinnamon

Sift together the flour, baking powder and salt. Work in the fat with the tips of the fingers. Add the milk gradually. Toss on a floured board and roll out to $\frac{1}{4}$ inch thickness. Have currants washed and dried, and mix them with the sugar and cinnamon. Brush over the top of the dough with melted fat, and then sprinkle over it the mixture of cinnamon, sugar and currants. Roll like a jelly roll; cut off slices $\frac{1}{4}$ inch thick. Bake these on a greased tin for about fifteen minutes in hot oven.

Date Bread

Make the same as raisin bread, using dates instead of raisins.

French Fried Potatoes

1 pint fat for frying	1 qt. small potatoes, cut in
Salt ($\frac{1}{2}$ teaspoon)	eighths lengthwise

Let the potatoes soak a few minutes in cold water, take from water, dry between towels, and drop a few at a time into the fat, heated hot enough to brown a cube of white bread in one minute. When taken out, drain on paper and sprinkle with $\frac{1}{2}$ teaspoonful of salt.

French Toast

9 half-inch slices of bread	$\frac{1}{2}$ teaspoon cinnamon
4 tablespoons sugar	$\frac{1}{4}$ cup fat

Toast bread, spread with butter or butterine, and sprinkle with cinnamon and sugar mixed together.

Fried Mush

1 cup cornmeal	4 cups water
1 teaspoon salt	

Have the salted water boiling in the upper part of the double boiler. Into this stir the cornmeal. Cook directly over the fire until the mixture boils. Then set over hot water and cook for two hours and a half. Pour into bread pan or shallow dish. Allow to stand over night, or several hours, until cold. Turn out of dish and cut into thin slices. Heat three tablespoons of fat in a frying pan. Sauté the slices of mush in the fat, until they are golden brown.

Fruit Shortcake (5 biscuits) with Fruit Sauce

1 cup flour	3 tablespoons fat
2 teaspoons baking powder	$\frac{1}{4}$ teaspoon salt
$\frac{3}{8}$ to $\frac{1}{2}$ cup water	

Sift together the flour, salt and baking powder. Work in fat with tips of fingers or a fork. Add water, making a soft dough. Turn out on floured board, roll, cut into biscuits, and bake in a hot oven for about twelve minutes. Split biscuits, and put fruit between and on top.

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Fruit Sauce

$\frac{1}{2}$ cup dried peaches	$1\frac{1}{2}$ cups water
$\frac{1}{2}$ cup raisins	$\frac{1}{2}$ tablespoon butter
$1\frac{1}{2}$ teaspoons cornstarch	$\frac{1}{4}$ cup sugar

Wash peaches, soak over night in water to cover, and cook until tender in the same water in which they were soaked. Mix sugar and cornstarch, add water and washed raisins, and cook together until raisins are tender. Add cooked peaches, warm and add butter. Serve with short cake.

Fruit Pudding

3 cups dry bread crumbs	4 tablespoons fat
$1\frac{1}{4}$ cups dried apples	$\frac{1}{2}$ cup sugar
	$\frac{1}{2}$ teaspoon vanilla

Wash apples thoroughly, and soak over night or for several hours, using water enough to cover fruit. Cook until tender in the water in which they were soaked. Add to apple sauce the sugar, vanilla and all but one-third cup of the bread crumbs. To the remaining bread crumbs add the melted fat, and sprinkle this over the apple sauce which has been placed in a baking dish. Bake in a hot oven until the bread crumbs are brown. Serve with clear sauce.

Goulash

1 lb. beef, shoulder, neck or chuck	$1\frac{1}{2}$ tablespoons flour
	$\frac{1}{2}$ teaspoon salt
1 tablespoon chopped onion	2 cups water
$1\frac{1}{2}$ tablespoons fat	

Wash beef and cut into $1\frac{1}{2}$ inch cubes. Brown these in a frying pan with chopped onion. Add two cups water, rinsing out frying pan, and putting meat and liquid into kettle. Cook for three hours, or until the meat is tender. Add salt, and thicken gravy with flour and fat cooked together.

Ginger Snaps (about 40)

1 cup molasses	$\frac{1}{2}$ teaspoon soda
$\frac{1}{2}$ cup shortening	1 tablespoon ginger
$\frac{3}{4}$ cups flour	$1\frac{1}{2}$ teaspoons salt

Heat molasses to boiling point, and pour over fat. Sift together with soda, flour, ginger and salt; add to molasses and shortening and stir well. Chill, roll very thin on floured board, cut and bake in moderately hot oven.

Graham Muffins (14 Muffins)

1 cup graham flour	1 teaspoon salt
1 cup white flour	1 cup milk
$\frac{1}{4}$ cup sugar	1 egg
4 teaspoons baking powder	2 tablespoons melted fat

Sift together the salt, sugar, baking powder and white flour. Add graham flour, and mix well. Beat egg, add to milk, and add these to the dry materials. Add melted fat. Bake in a hot oven, in greased muffin tins for about twenty-five minutes.

Hamburger Steak

1 pound beef	$\frac{1}{4}$ onion, chopped fine
2 cups bread crumbs	$\frac{1}{2}$ teaspoon salt

Pepper

Wash beef and put through meat chopper. Mix with bread crumbs, salt and pepper and onion. If bread crumbs are very dry, moisten with water, so that mixture is not dry. Shape into meat cakes, and cook in frying pan, using just enough fat to keep the meat from sticking to the pan.

Hominy

1 cup hominy	1 teaspoon of salt
1 qt. boiling water	1 teaspoon of nut butter

Wash the hominy in two cups of cold water. Have the water in which it is to be cooked boiling and salted and put in the nut butter. Stir in the hominy and let it cook over night, the same as oatmeal.

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Kidney Bean Stew

½ pound kidney beans	1 potato
3 slices onion	1 cup tomatoes (canned)
¾ cup rice	1½ tablespoons fat
5 tablespoons flour	

Soak beans over night. Drain, and cook in boiling water until soft. About one hour before they finish cooking add the rice, onion and tomato. Half an hour later add the diced potato. Bind the liquid with the fat and flour, cooked together.

Kidney Stew

1 pound kidney pork	2 cups water
1 carrot	2 tablespoons flour
½ medium sized onion	2 tablespoons drippings

Scrape and slice carrot, peel and slice onion, and cook together in two cups of water until tender. Soak kidneys for one hour in lukewarm water. Drain, clean and dry. Dredge with flour, slice, and brown in frying pan, with drippings. Remove kidneys from frying pan, add flour to the fat, and brown. Add to this the two cups of water in which the carrots and onion were cooked. Boil until thickened. Add kidneys, onion and carrots. Season with salt and pepper, cook for three minutes and serve.

Lemon Milk Sherbet

2 cups milk	¾ cup water
1 cup sugar	Juice of two lemons

Mix the lemon juice and sugar, add water, and then add milk very slowly. Freeze, using three parts of ice to one of salt.

Lyonnaise Potatoes

5 medium-sized potatoes	3 tablespoons fat
1½ medium-sized onions	Salt and pepper

Wash potatoes, pare and boil. Cut into cubes. Peel and slice onion. Heat fat in frying pan, add potatoes and onions, and fry until brown, turning with cake turner occasionally, to keep those in bottom of pan from becoming burned. Season with salt and pepper.

Macaroni Croquettes with Tomato Sauce (about 12 croquettes)

2 cups macaroni, broken in small pieces	5 tablespoons fat $\frac{1}{2}$ teaspoon salt
1 cup milk	Pepper
$\frac{1}{4}$ cup flour	Fat for frying

Cook the macaroni in boiling salted water until it is tender, drain, cut fine. Melt fat, add flour and cook for three minutes, add milk and cook until well thickened. Add salt and pepper, and stir the macaroni. Cool. Shape croquettes. Roll in fine bread crumbs. Fry in deep fat, heating the fat until it begins to smoke before putting in the croquettes.

Mashed Turnips and Potatoes

3 medium-sized turnips	1 medium-sized potato
1 teaspoon salt	

Wash and pare the turnips and the potato. Cut into quarters. Cook in separate kettles of boiling salted water, as the turnips will require more time for cooking than the potato. When soft, drain, add the potato to the turnip, and mash together. Add salt and pepper to taste.

Meat Loaf

$\frac{1}{2}$ pound dry bread crumbs	$\frac{1}{2}$ cup of any kind of stock
1 teaspoon grated onion	or water
1 teaspoon salt	1 pound chopped meat
$\frac{1}{4}$ teaspoon pepper	

Mix, shape into a loaf, dredge with flour, and bake forty minutes in medium hot oven, basting frequently.

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Mock Cherry Pie (1 Pie)

1 cup cranberries
 $\frac{1}{2}$ cup raisins
 $\frac{1}{2}$ cup water
1 cup sugar
 $\frac{1}{2}$ tablespoon flour
 $\frac{1}{4}$ teaspoon salt

CRUST
2 cups flour
 $\frac{1}{2}$ cup fat
 $\frac{1}{4}$ teaspoon salt
Cold water

Cut cranberries in halves, seed and cut up raisins, add sugar, water, salt and flour. Mix well together. Use as filling for covered pie.

For crust add salt to flour, and work in fat with the tips of the fingers. Moisten with just enough cold water to make a stiff dough which can be rolled out on a floured board. Roll out dough, line pie tin, fill with cranberry mixture, make cover of dough, and bake in hot oven.

Mock Chicken

2 cups beans, dry
 $\frac{1}{2}$ loaf dry bread, ground
to make fine crumbs
 $\frac{1}{4}$ cup hot water
 $\frac{1}{4}$ cup fat
 $\frac{1}{2}$ teaspoon sage
Salt and pepper

Pick over beans, wash, and allow them to soak over night in cold water. Drain, and put on to cook in boiling water, allowing them to simmer until tender, but not broken. Drain, mash. Make a stuffing with the bread crumbs, melted fat, powdered sage, salt and pepper. Arrange in baking dish a layer of mashed beans, a layer of stuffing, and a second layer of mashed beans. Bake in moderate oven for twenty minutes. Serve with tomato sauce.

Molasses Cake (about 21 little cakes)

$\frac{1}{2}$ cup sugar
 $\frac{1}{2}$ cup fat
1 cup molasses
1 teaspoon ginger
 $\frac{1}{2}$ teaspoon cinnamon
1 egg
 $2\frac{1}{2}$ cups flour
2 teaspoons soda
1 cup hot water
 $\frac{1}{2}$ teaspoon salt

Sift together the salt, sugar, flour, soda and spices. Melt butter in hot water, add molasses, egg well beaten and dry ingredients. Mix well. Bake in small cup cake tins in a moderate oven for about twenty-five minutes.

Molasses Cookies (about 34 cookies)

2 cups flour	1 cup molasses
$\frac{1}{4}$ cup fat	1 teaspoon soda
5 tablespoons water	1 teaspoon salt

Heat the molasses until it begins to boil and pour it over the fat. Sift together the flour, salt and soda. Add to the molasses and fat. Add water. Mix thoroughly. Chill. Toss a part of the mixture on floured board, roll very thin, cut with cookie cutter dipped in flour. Bake on a greased baking sheet in a moderate oven. Use up remainder of dough in the same way.

Norwegian Prune Pudding

$\frac{1}{4}$ pound prunes	4 tablespoons cold water
$\frac{1}{2}$ cup sugar	$1\frac{1}{2}$ cup cold water
$\frac{1}{2}$ cup boiling water	1 small stick cinnamon
3 tablespoons cornstarch	

Soak the prunes for one hour in cold water. Cook in water in which they soaked until they are tender. Remove the prune seeds and cut prunes into bits. Add sugar, boiling water, and cinnamon and simmer for ten minutes. To the cornstarch add the four tablespoons of cold water, mixing to a paste. Add this slowly to the prune mixture and cook for ten minutes. Remove stick of cinnamon, and pour into mold. Serve cold.

Oat Bread

2 cups boiling water	1 cup rolled oats (dry)
$\frac{1}{2}$ tablespoon salt	$\frac{1}{2}$ cup molasses
$\frac{1}{2}$ yeast cake, dissolved in	1 tablespoon fat
$\frac{1}{2}$ cup lukewarm water	$4\frac{1}{2}$ cups flour

Add boiling water to the rolled oats, stir well and let stand for one hour. Add molasses, salt, fat, dissolved yeast cake and flour; let the dough rise to double its bulk, beat well, and turn into greased bread pans, let rise the second time, and bake about one hour in a moderate oven.

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Oatmeal

1 cup oatmeal	1 quart water
	1½ teaspoons salt

Add the salt to the water, which is boiling, directly over the fire. Into this stir the cereal, and when this begins to boil set it over hot water to finish cooking. Cook over water for six hours. Oatmeal can be cooked two hours directly over fire.

Oatmeal Cookies (20 cookies)

1 egg	2 teaspoons baking powder
¼ cup sugar	1 teaspoon salt
½ cup milk	1 cup raisins
¼ cup water	5 tablespoons melted fat
2 cups flour	½ cup fine oatmeal

Sift together the flour, baking powder and salt. Add the oatmeal. Beat the egg, add sugar, water and milk, dry ingredients mixed together, raisins, and melted fat. Drop from spoon on greased baking sheet and bake in moderate oven.

Parker House Rolls

2 cups warm water	1 teaspoon salt
4 tablespoons fat	1 yeast cake, dissolved in
4 tablespoons sugar	¼ cup warm water
About 5½ cups flour	

Add warm water to fat, sugar and salt, dissolving the fat. Add dissolved yeast cake, and flour. Knead, and put aside to rise. When it rises turn dough out on floured board, roll out to one-third thickness and cut with biscuit cutter. With the handle of a knife make a crease in the center of the top of roll; brush over half of the top with melted fat, and fold, pressing the edges together. Put in greased pan, and allow rolls to rise. Bake in hot oven for about fifteen minutes. If the rolls are to be allowed to rise over night use only one-half yeast cake.

Pickled Beets

4 beets	$\frac{3}{4}$ cup vinegar
3 cloves	2 tablespoons sugar

Wash beets, and cook whole in boiling water until tender, the time varying from one to four hours. Drain, put into cold water, and remove skins. Slice. Heat vinegar, sugar and cloves and pour over the sliced beets. Allow to stand until cold, and for several hours, if possible.

Potato Soup with Carrots

3 medium-sized potatoes	Sprigs of parsley
2 cups water	$1\frac{1}{2}$ cups milk
4 tablespoons flour	1 carrot
Soup greens	$1\frac{1}{2}$ tablespoons fat
2 slices of onion	Salt and pepper

Stalk of celery

Wash and pare potatoes. Cook in boiling salted water until they are soft. Rub through colander. Use water in which potatoes were cooked to make up the 2 cups of water for the soup. Cook carrot cut in cubes in boiling water until soft; drain. Scald milk with onion, celery and parsley. Add milk and water to potatoes. Melt fat in sauce pan, add flour and cook for three minutes. Slowly add soup, stirring constantly. Boil for one minute, season with salt and pepper. Add cubes of carrots and serve.

Prune Pie

$\frac{3}{4}$ pound prunes	$2\frac{1}{2}$ tablespoons cornstarch
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Wash prunes, and soak overnight, or several hours, in water to cover. Cook in water in which they were soaked until they are tender. Remove seeds and cut prunes into quarters. Thicken the juice with cornstarch. Use as filling for covered pie. Make crust as for meck cherry pie.

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Raisin Bread

Flour about 6 cups	1 pint hot water
4 tablespoons fat	$\frac{1}{4}$ yeast cake dissolved in
$1\frac{1}{2}$ cups raisin	$\frac{1}{4}$ cup lukewarm water
$1\frac{1}{2}$ teaspoons salt	

Dissolve the fat in the hot water. Allow this to cool until just lukewarm. Add the dissolved yeast cake, salt and about five cups of flour, stirring until thoroughly mixed. Add the remaining flour, and knead well on a board. Return this mixture to a bowl, and allow it to stand overnight in a warm place. It should rise to double its bulk. In the morning remove from bowl, put on floured board and knead. While kneading, add the raisins, which have been picked over, washed and dried. Shape dough into loaves, and put into greased bread pans. Allow to rise until double its bulk. Bake for about one hour in a moderately hot oven. Currants may be substituted for raisins, making currant bread.

Rice Pudding with Raisins

$\frac{3}{4}$ cup rice	$1\frac{1}{2}$ quarts boiling water
$\frac{1}{2}$ cup raisins	$\frac{1}{2}$ teaspoon salt
1 cup milk	$\frac{1}{4}$ cup sugar

Stir the rice into the boiling salted water and cook until it is about half done, which will be about fifteen minutes. Drain the rice, add the milk, sugar and raisins, and place in a greased baking dish. Bake in a moderate oven for about 45 minutes.

Rolled Steak with Dressing

1 pound shoulder clod steak	3 tablespoons flour
4 cups fine bread crumbs	2 cups hot water
$\frac{1}{2}$ small onion chopped fine	$\frac{1}{2}$ teaspoon sage, powdered
$1\frac{1}{2}$ cups hot water	$\frac{1}{2}$ teaspoon salt

Make a stuffing of the bread crumbs, onion, salt and sage, adding more water if the bread crumbs are very dry. Heat a frying pan, sear steak in the frying pan, browning on both sides. Remove steak, and make into roll, with dressing in center. Tie in shape. To the fat in the frying pan add three tablespoons flour, and brown. Add two cups hot water, and stir until thickened. Pour this gravy over steak, put into oven and cook for three hours, adding more water to the gravy as it thickens, and turning roll occasionally so that it does not become too dry on top. Serve with gravy.

Salmon Croquettes

$\frac{1}{2}$ can salmon	Fat for frying
$\frac{1}{2}$ cup rice	1 cup water
$\frac{1}{2}$ teaspoon salt	3 tablespoons fat
Bread crumbs	$\frac{1}{2}$ cup flour

Cook the rice in three cups of boiling salted water for about twenty-five minutes, until it is tender. Drain, and pour boiling water through it so that grains are distinct. Remove bones from salmon and pick it into bits. Melt the three tablespoons fat, add flour, and cook together three minutes. Add water, and cook until thickened. To this add salt, cooked rice and salmon. Chill. Shape into croquettes. Dip these in bread crumbs. Heat the fat for frying until it begins to smoke. Then put in croquettes and fry a golden brown. Remove from fat, drain on paper and serve with white sauce.

Samp

1 cup samp	$\frac{1}{2}$ teaspoon salt
3 cups boiling water	

Wash the samp, add the boiling water and soak for twelve hours. Drain, rinse with hot water, and add enough fresh hot water to cover the samp. Cook for seven hours on the back of the stove, or over a low flame, stirring occasionally to prevent it from burning. When nearly cooked stir in the salt.

Savory Rice

1 cup rice	Pepper
1 cup tomato pulp (canned	$\frac{1}{2}$ onion
tomato put through	$1\frac{1}{2}$ teaspoons salt
sieve)	$2\frac{1}{2}$ cups water
3 tablespoons fat	

Add rice to about six cups of boiling water and cook for five minutes. Remove from fire and drain. Fry the onion in a sauce pan with the fat, until it is a light brown color, add rice and cook, stirring constantly, until fat is absorbed. Add canned tomato pulp, salt, pepper and water, and cook until the rice has absorbed the liquid and is tender.

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Scalloped Onions and Peanuts

5 medium-sized onions	4 cups bread crumbs
$\frac{3}{4}$ cup peanuts	1 cup milk
1 tablespoon fat	1 tablespoon flour

Boil onions. Drain and cut into slices. Melt fat, add flour and cook together for three minutes. Add milk and cook until it thickens, making a white sauce. Season with salt and pepper. Chop the peanuts. In a greased baking dish arrange alternate layers of bread crumbs and onions, sprinkling the onions with the chopped peanuts and the white sauce. Have the top layer of crumbs. Brown in a hot oven.

Scalloped Potatoes

4 medium-sized potatoes	Hot water
$1\frac{1}{2}$ tablespoons fat	2 tablespoons flour
Salt and pepper	

Wash potatoes, pare and cut into thin slices. Put into the bottom of a greased baking dish a layer of potatoes. Sprinkle these with salt, pepper and flour. Dot over with fat. Make two more similar layers. Add hot water until it just reaches the top layer of potatoes. Bake in moderately hot oven for about an hour and a quarter, until the potatoes are soft.

Scalloped Rice and Tomatoes

$\frac{3}{4}$ cup rice	Salt
$1\frac{1}{2}$ teaspoons salt	6 cups boiling water
$\frac{3}{4}$ cup water	$\frac{3}{4}$ cup tomatoes (canned)
3 tablespoons fat	

Wash rice, and pour slowly into the boiling water to which $1\frac{1}{2}$ teaspoons salt have been added. Boil until the rice is about half done, which will be for about 15 minutes. Drain rice, and arrange in alternate layers with tomato, in a greased baking dish. Dot over the tomato with bits of fat. Have the top layer of rice. Sprinkle with salt, and add enough water (one-half cup or more) to come up almost to the top of the rice. Bake in oven for about forty minutes until rice has absorbed almost all of the liquid.

Scalloped Salmon

1 cup salmon	4 cups bread crumbs
4 tablespoons fat	3 tablespoons flour
$\frac{1}{2}$ teaspoon salt	1 cup water

Melt fat, add flour and cook together for three minutes. Add water and cook until thickened. Add this to bread crumbs, adding more water if the crumbs are very dry. Pick salmon into bits, removing pieces of bone. Add salmon to bread crumb mixture, season with salt and pepper and bake in greased dish in moderately hot oven for about twenty minutes.

Scalloped Tomatoes

2 cups canned tomatoes	2 teaspoons salt
3 tablespoons fat	$\frac{1}{4}$ loaf stale bread
	$1\frac{1}{4}$ tablespoons sugar

Melt fat and add to tomatoes. Toast slices of bread, and cut into inch cubes. In the bottom of a greased baking dish place one layer of toasted bread, then the tomatoes, seasoned with salt, sugar and pepper. On top put another layer of toasted bread. Bake in a moderate oven for about twelve minutes.

Spaghetti and Cheese

1 cup spaghetti	$\frac{1}{2}$ cup milk
2 quarts boiling water	3 tablespoons fat
1 tablespoon salt	3 tablespoons flour
$\frac{1}{2}$ pound cheese	1 cup water

Cook spaghetti in boiling salted water until tender. Drain. Melt fat, add flour and cook for three minutes. Add milk and one cup water, and cook until thickened. Season with salt and pepper. In a greased baking dish arrange alternate layers of cooked spaghetti and white sauce. Sprinkle the spaghetti with grated cheese. Bake in moderately hot oven until spaghetti is brown.

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Split Pea Soup

1 cup dried split peas	2 tablespoons flour
2½ quarts cold water	3 tablespoons fat
¾ onion	1½ teaspoons salt

Pick over peas, wash and soak overnight or for several hours. Drain, add cold water and onion and simmer for three and a half hours, or until the peas are soft. Rub through a colander or coarse sieve. Add butter and flour cooked together, and salt.

Steamed Rice

2 cups whole rice, or	6 cups water
1 cup broken rice	4 teaspoons salt
4 teaspoons fat	

Let the water boil. Wash the rice in cold water. Put the salt and the fat in the water, then the rice. Continually stir it until it starts to cook and then let it cook very slowly without stirring. When it has cooked about ten minutes, wash it off in hot water. Put it in another pot, with two teaspoonfuls of fat and set this in another pan, containing hot water, on the back of the stove and let it steam, covered closely until the rice is done.

Stewed Lima Beans

1 cup lima beans	1 teaspoon salt
2 quarts cold water	2 teaspoons sugar
1 slice onion	

Soak over night in two quarts of cold water. Put them on to boil gently in two quarts of cold water. When done put in salt, sugar and onion, and set back on the stove in the water in which they were cooked until ready to serve.

Stewed Peaches with Raisins (about 7 servings)

½ pound dried peaches	¼ cup raisins
½ cup sugar	

Wash peaches, soak overnight with water enough to cover and stew in water in which they were soaked. When about half done add the raisins, which have been washed and seeded, and the sugar. Cook slowly that the peaches may keep their shape.

Stewed Prunes

- $\frac{1}{2}$ pound prunes $1\frac{1}{2}$ cups water
1 tablespoon sugar

Wash prunes. Soak over night in cold water. Cook in water in which they were soaked, until they are tender. Slow cooking is best. Add sugar about five minutes before taking fruit from the fire.

Stuffed Beef Heart

- 1 beef heart $\frac{1}{2}$ cup hot water
2 cups fine bread crumbs Salt and pepper to taste
1 chopped onion 3 medium-sized carrots
3 medium-sized onions

Wash heart thoroughly, inside and out. Remove the veins and arteries. Make a stuffing of the bread crumbs, chopped onion, hot water, and season it with salt and pepper. Stuff the heart, and sew up the opening. Sprinkle the heart with salt and pepper, brown in fat drippings, and then cover with water and let simmer for about three hours. When almost done, add onions and carrots, cut into slices, and cook until the vegetables are tender. Remove the heart from the gravy, dredge with flour, and brown in the oven. Thicken the gravy in which the heart has been cooked.

Stuffed Green Peppers

- 3 green peppers $\frac{1}{2}$ cup cooked rice
2 cups cooked samp $\frac{1}{2}$ onion, grated

Wash peppers, cut into halves and remove seeds. Parboil peppers for fifteen minutes. Mix together the cooked rice, cooked samp and grated onion. Add salt if cereal has not been seasoned in cooking. Stuff halves of peppers with cereal mixture, put into pan with one-half cup water, and bake for fifteen minutes.

This is a good way of using left over cereal. Rice alone or samp alone or a stuffing of bread crumbs may be used.

Tomato Sauce

- 1 cup tomatoes 2 tablespoons flour
 $\frac{1}{4}$ cup water $\frac{1}{4}$ small onion, chopped fine
1 teaspoon sugar $\frac{1}{2}$ teaspoon salt

Cook tomatoes, onion, sugar, water and salt together for ten minutes. Rub through a coarse sieve. Add tomato mixture to flour, gradually, stirring constantly. Cook until it thickens.

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Tomato Sauce for Mock Chicken

$\frac{1}{2}$ cup tomatoes (canned)	3 tablespoons flour
1 cup water	3 slices onion
	1 teaspoon sugar

Cook the canned tomatoes, onion, sugar and water together until onion is soft. Rub through a colander. Season with salt and pepper. Combine with flour, adding a small amount of liquid to the flour, and mixing well, to avoid lumps. Cook until thick.

Vanilla Wafers (about 60 small wafers)

$\frac{1}{2}$ cup sugar	1 cup flour
$2\frac{1}{2}$ tablespoons butter	1 teaspoon baking powder
$\frac{1}{2}$ egg	$\frac{1}{4}$ teaspoon salt
2 tablespoons milk	1 teaspoon vanilla

Cream and butter, add the sugar, the egg well beaten, and milk. Sift the flour, baking powder and salt together and add these to the first mixture. Add vanilla. Roll very thin. Cut and bake for about twelve minutes in a moderately hot oven.

Veal Loaf

1 pound veal neck	$\frac{1}{2}$ small onion
$\frac{1}{16}$ pound fat pork	$\frac{1}{8}$ teaspoon mustard
3 cups bread crumbs	1 teaspoon salt

Put veal through meat chopper, add bread crumbs, onion finely chopped, salt and mustard, and mix well together. If bread crumbs are very dry it may be necessary to add a little water so that mixture will be moist enough to be shaped into a loaf. Place loaf in baking pan, dredge with flour, and pour one-half cup water around it. Lay thin slices of fat pork across the top. Bake in moderate oven for about two hours, basting occasionally.

Welsh Rarebit on Toast

$\frac{1}{2}$ pound cheese	2 tablespoons fat
$\frac{1}{2}$ teaspoon mustard	$\frac{1}{4}$ teaspoon salt
1 cup milk	$\frac{1}{2}$ teaspoon vinegar
2 tablespoons flour	Pepper

Melt butter, add flour and mix well. Add milk and cook until thickened. Add cheese, cut into bits, and cook until it is melted. Add salt, pepper and vinegar, and serve on toast.

White Sauce with Peas

1 cup milk	2 tablespoons flour
2 tablespoons fat	$\frac{1}{4}$ teaspoon salt
$\frac{1}{2}$ cup peas (canned)	

Melt fat, add flour and cook together for three minutes. Add milk and cook until thickened. Add salt and pepper. Drain the peas, add to the white sauce and warm.

Yellow Split Pea Soup

1 cup split peas	2 tablespoons fat
$2\frac{1}{2}$ quarts cold water	2 tablespoons flour
$\frac{1}{4}$ onion	$1\frac{1}{2}$ teaspoons salt
1 pint hot water, or stock	$\frac{1}{8}$ teaspoon pepper

Pick over peas. Soak for five hours, or longer, drain, add the cold water and onion. Simmer for four hours, or longer, until the peas are soft. Rub the peas through a sieve. Melt the fat. Add to this the flour, salt and pepper, and stir until well blended. To this add the peas, and the hot water, or stock. Cook for five minutes. Serve.

Croutons for Soup

Cut stale bread into one-third inch cubes. Heat about one cup of fat in a small stew pan until it begins to smoke. Drop in cubes of bread and fry until golden brown. Remove bread from fat, drain on unglazed paper. Sprinkle in soup just as it is to be served.

III

HOME ECONOMIES

Section I—Heat and Cold

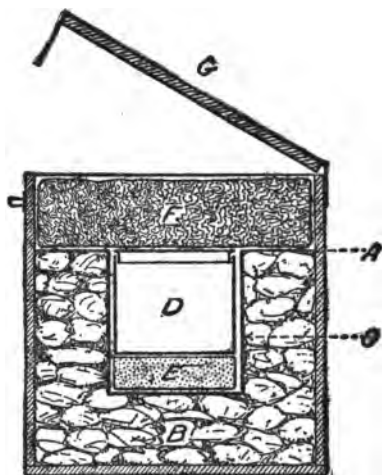
Two things greatly needed in the home are heat and cold, and both are to some extent expensive. The expense of both heat and cold, that is, coal and ice, can be reduced materially by simple devices.

THE FIRELESS COOKER

Many have been deterred from using the fireless cooker because of the initial expense of the investment, moderate as it is. But homemade fireless cookers can be constructed at a trivial expenditure. The Department of Agriculture has issued circulars describing the device (Farmer's Bulletin 771), but it may briefly be summed up as an ordinary galvanized iron pail placed inside of another iron pail which rests on a soapstone or other heating device, surrounded in a wooden box by about four inches of packing, waste-paper, newspaper, hay, or other nonconducting material. Smaller pails or utensils, double-boiler, etc., can be placed inside the larger pail if a small quantity

of food is to be heated. A cushion or excelsior pad should be placed over the cover of the pail and under the lid of the box.

The fireless cooker is especially serviceable in cook-



FIRELESS COOKER

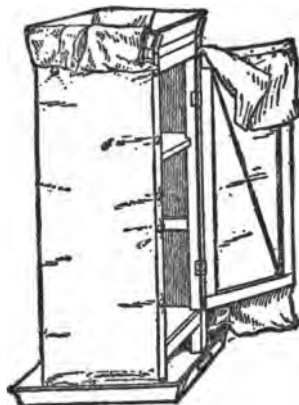
ing cereals. There is absolutely no advantage in buying package cereals. Whole bulk cereals should be bought and thoroughly cooked. For example, oatmeal, should be cooked in a double-boiler for six hours or directly over the fire for two hours. By the use of a fireless cooker oatmeal can thus be properly cooked overnight.

Meats may be partially roasted in the oven and finished in the cooker. This improves the flavor and

texture of the cheaper cuts. Other foods best adapted to the cooker are soup, vegetables, dried fruits, steamed bread and puddings. Foods cooked together in the cooker must, of course, require the same amount of cooking, as it can not be opened without loss of heat.

THE ICELESS REFRIGERATOR

A refrigerator, without the use of ice, can be constructed by enveloping a screened set of shelves in a cotton-flannel jacket which can be buttoned around it



ICELESS REFRIGERATOR

and kept moistened by wicks of the same material placed in a pan of water on top of the box, moisture from the pan being allowed to drip on the sides of the box and keep the enveloping flannel moistened. The

evaporation of this moisture will in fairly dry climate maintain a temperature of 50 degrees in the ice-box and make the use of ice unnecessary, or help to preserve ice that may be used. Keep in a shady place, where the air circulates freely.

Section II—Choosing Foods

Certain types of foods that may become scarce and are greatly needed by our Allies are flour, cereals and grains, etc. While these are the cheapest foods for energy and, when the income is limited, should form the main basis of the diet, the average individual should endeavor to secure as much nutriment as possible from green vegetables and fruit and limit his use of bread and cereals, because of the better keeping qualities of grains and flours.

The best way to preserve vegetables and fruit is to eat them. Those that can not be immediately consumed for family use may be canned, or dried by the new dehydrating processes. (Write for **Home Canning Instruction**, 21, U. S. Dept. of Agriculture. **Instruction for Dehydrating Vegetables**, Geo. E. Farrell Dept. of Agriculture, or National Emergency Food Garden Commission, 1410 H Street, N. W., Washington, D. C.)

It should always be remembered, however, that fruit and green vegetables are low in fuel value and your

body weight should be watched so that you may be sure that a sufficient amount of food is secured to maintain the weight at the most favorable point, which is about the average weight at age thirty.

Those in moderate circumstances or well-to-do should secure as much nutriment from perishable food as possible.

One of the most important elements in the diet is milk, especially for cooking purposes. Good observers have noted that the absence of milk in the diet is very keenly felt. Food lacks a satisfying flavor if milk is eliminated from the kitchen. Milk could be used more effectively than is now the case, if people would bear in mind the uses of skimmed milk, which is more economical and more satisfactory for certain purposes than whole milk. There is advantage in securing the cream from whole milk which may be needed for the table instead of buying it separately. Use the skimmed milk that remains for cooking vegetables or other special cooking purposes.

By cooking vegetables in skimmed milk and serving them in the liquor you not only secure all the vegetable juices and the valuable food elements in the vegetables, their bulk, their fiber, their minerals and accessories, but also the protein or building food in the skimmed milk which supplements the lack of protein in the

vegetables. There is a certain prejudice against skimmed milk, which should be removed. It is true that it is not a complete food for children. It has many uses, however, which should not be disregarded, especially in supplying protein or building and repair food.

Do not waste even half a cupful of milk. Have a receptacle for odd lots of milk and use it in cooking or for souring and cheese-making. Cottage cheese has quite a high value in protein or tissue-building food and is much cheaper than meat, for which it may be substituted in the diet.

Butter should never be used in cooking and it might well be omitted from the table and butter substitutes used which are wholesome and nutritious foods, such as Oleomargarine, Nutmargarine, or nut butter made of cocoanut oil and peanut oil, churned up with a certain amount of milk. These cost about one-third less than butter. Do not confuse peanut butter with these butter substitutes. Peanut butter is miscalled. It is not a true butter, but simply mashed peanuts and is very high in protein or building material as well as fat. It is a healthful and nourishing food, but should be used as such and not simply as a fat. For example, peanut-butter sandwiches may take the place of meat sandwiches. To use peanut butter as a butter in the same meal where meat, peas or beans or other high

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protein food is used overloads the meal with protein and if used at each meal in place of butter, there would surely be an excess of protein.

FISH AND POULTRY

The value of fish and poultry as substitutes for meat should not be forgotten. The sea is always with us and its limitless supply of fish. The fish crop is not as variable as the wheat crop and not subject to such changes as the live-stock market. We need to keep all the milch cows possible and to avoid the killing of young live stock so far as possible. We can lessen the call on live stock by turning to fish and to some extent to poultry.

Remember that one high-protein meal a day is all that we need. That is, one meal at which fish, meat, poultry or eggs are eaten, and that we can do without all of these foods, if necessary, using cheese, peas, and beans, or nuts, as substitutes. A meatless day a week, on which day the main feature of the principal meal is a dish of creamed macaroni and cheese, will do nobody any harm. England abandoned the meatless day a week because it resulted in an excessive call on bread and butter and flour products, but it should be possible to establish it here without such risk. A wheatless day a week would act as a safeguard and is urged by Mr. Hoover.

SAVING WHEAT

In order to save wheat, the most needed food for our Allies, as much use as possible should be made of cornmeal, barley and rice. It is important to secure whole cornmeal if possible, especially if it is to be mixed with patent white flour in bread-making. Secure whole wheat flour if possible and mix with it 10 per cent. of barley flour or cornmeal. Use whole cornmeal for Johnny-cake and eat it as a war-bread. You can grind your own cornmeal at home with a coffee-grinder, or in small mills which can be had for \$2.50 upward.

It is not likely that rice will be used by anybody so continuously or exclusively as to result in faulty nutrition due to its lack of accessory food elements, but if used very much as a cereal or substitute for grain and potatoes, there is need for fruit and green vegetables or fresh milk, fresh peas, beans, eggs, other whole cereals or fresh meat.

When the diet is very simple and narrow look out for food deficiencies! Use complete unsterilized foods, whole cereals, and a certain amount of raw food every day.

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REFERENCES TO GOOD BOOKS ON DIET

Feeding the Family

Mary Swartz Rose

The Macmillan Co., New York. Price \$2.10.

The Children's Food

Mary Swartz Rose

National Special Aid Society

259 Fifth Ave., New York. Price 5 cents.

Food Products

Henry C. Sherman

The Macmillan Co., New York.

Analysis and Cost of Ready-to-Serve Foods

Gephart & Lusk

Amer. Medical Assoc., Chicago. Price 15 cents.

Foods and Household Management

Kinne & Cooley

The Macmillan Co., New York.

How to Live

Fisher & Fisk

Funk & Wagnalls Company, New York. Price
\$1.12, postpaid.

Physiology of Food and Economy in Diet

W. M. Bayliss (University College, London).

Longmans, Green & Co.

U. S. Government Publications.

List with prices to be had from Supt. of Documents.
Washington, D. C.

Food Values and the Rationing of a Country.

Robinson Smith (Free pamphlet).
3, London Wall Building, London, E. C.

Food Economy in War Time

T. B. Wood and F. G. Hopkins
Cambridge University Press, London, Fetter
Lane, E. C.

The Story of a Loaf of Bread

T. B. Wood
Cambridge University Press, London, Fetter
Lane, E. C.



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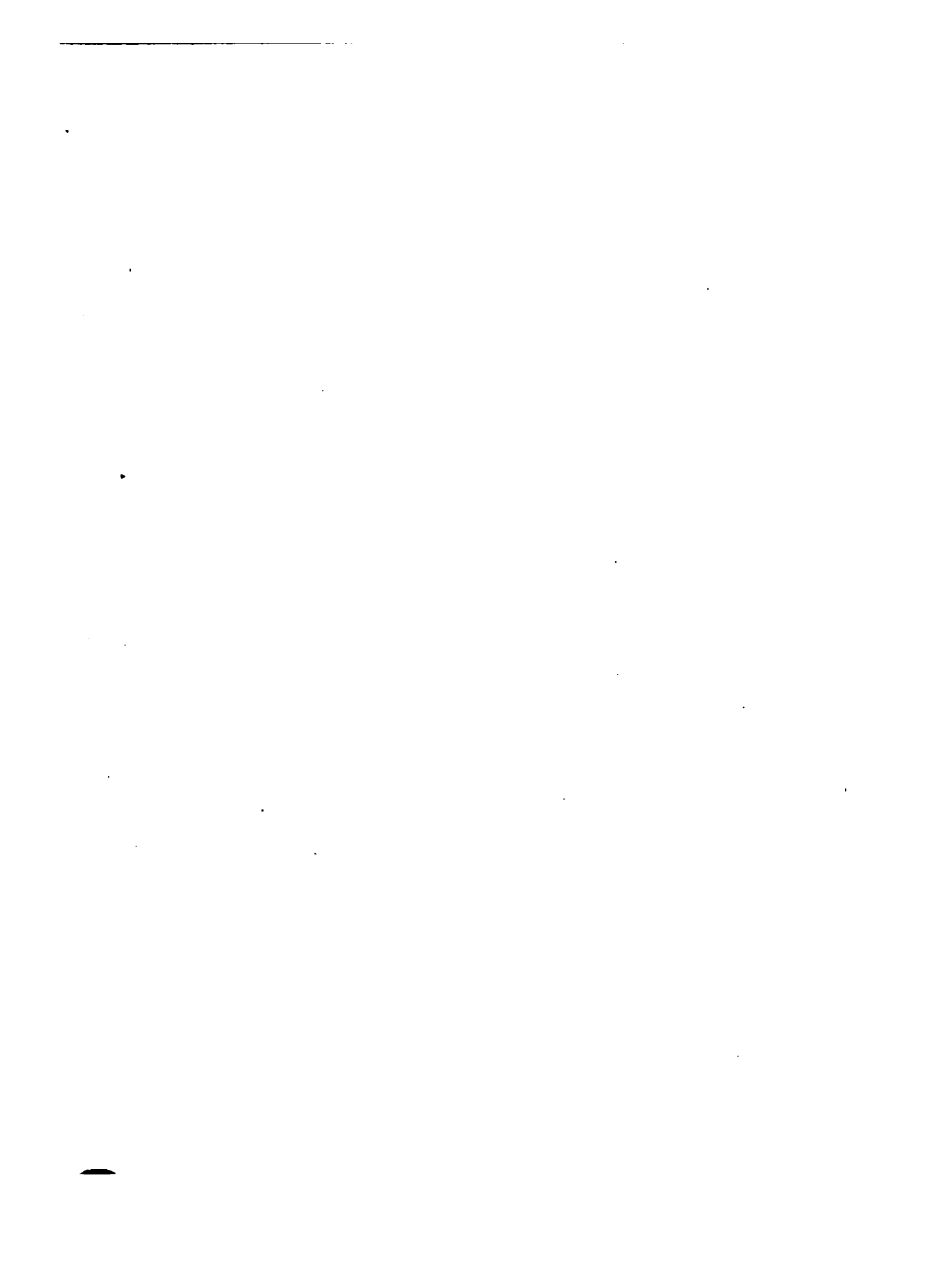
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